THE JOURNAL

OF

IMMUNOLOGY

VOLUME 167

NUMBERS 1 TO 12

LINTHICUM, MD. 21090
2001

COPYRIGHT © 2001 BY THE AMERICAN ASSOCIATION OF IMMUNOLOGISTS

CUTTING EDGE

1 Cutting Edge: The Common γ-Chain Is an Indispensable Subunit of the IL-21 Receptor Complex
Hironobu Asao, Chikara Okuyama, Satoru Kumaki, Naoto Ishii, Shigeru Tsuchiya, Don Foster, and Kazuo Sugamura

6 Cutting Edge: Ly49A Inhibits TCR/CD3-Induced Apoptosis and IL-2 Secretion
Joanne Roger, Anick Chalifour, Suzanne Lemieux, and Pascale Duplay

11 Cutting Edge: Antibody-Mediated Cessation of Hemotropic Infection by the Intraerythrocytic Mouse Pathogen *Bartonella grahamii*
Jan Koesling, Toni Aebischer, Christine Falch, Ralf Schülein, and Christoph Dehio

15 Cutting Edge: Germinal Centers Can Be Induced in the Absence of T Cells
Vicky M. Lentz and Tim Manser

CELLULAR IMMUNOLOGY AND IMMUNE REGULATION

21 Molecular Characterization of B Cell Clonal Expansions in the Liver of Chronically Hepatitis C Virus-Infected Patients
Vito Racanelli, Domenico Sansonno, Claudia Piccoli, Francesca Paola D'Amore, Felicia Anna Tucci, and Franco Dammacco

30 11β-Hydroxysteroid Dehydrogenase Type 1 Is Induced in Human Monocytes upon Differentiation to Macrophages
Rolf Thieringer, Cheryl B. Le Grand, Linda Carbin, Tian-Quan Cai, Birming Wong, Samuel D. Wright, and Anne Hermanowski-Vosatka

36 Structural Features of Nonpeptide Prenyl Pyrophosphates That Determine Their Antigenicity for Human γδ T Cells
Craig T. Morita, Hoi K. Lee, Hong Wang, Hongmin Li, Roy A. Mariuzza, and Yoshimasa Tanaka

42 Expression of Active Protein Kinase B in T Cells Perturbs Both T and B Cell Homeostasis and Promotes Inflammation
Michael J. Parsons, Russell G. Jones, Ming-Sound Tsao, Bernard Odermatt, Pamela S. Ohashi, and James R. Woodgett

49 The Distinct Roles of T Cell-Derived Cytokines and a Novel Follicular Dendritic Cell-Signaling Molecule 8D6 in Germinal Center-B Cell Differentiation
Xin Zhang, Li Li, Jaeho Jung, Shulin Xiang, Christiane Hollmann, and Yong Sung Choi

57 Lymphotactin Expression by Engineered Myeloma Cells Drives Tumor Regression: Mediation by $CD4^+$ and $CD8^+$ T Cells and Neutrophils Expressing XCR1 Receptor
Chantelle M. Cairns, John R. Gordon, Fang Li, Maria E. Baca-Estrada, Terence Moyana, and Jim Xiang

66 Novel Roles of CpG Oligodeoxynucleotides as a Leader for the Sampling and Presentation of CpG-Tagged Antigen by Dendritic Cells
Hidekazu Shirota, Kunio Sano, Noriyasu Hirasawa, Tadashi Terui, Kazuo Ohuchi, Toshio Hattori, Kunio Shirato, and Gen Tamura

75 Nitric Oxide Inhibits the Transcription Repressor Yin-Yang 1 Binding Activity at the Silencer Region of the Fas Promoter: A Pivotal Role for Nitric Oxide in the Up-Regulation of Fas Gene Expression in Human Tumor Cells
Hermes J. Garbán and Benjamin Bonavida

82 Fas Aggregation Does Not Correlate with Fas-Mediated Apoptosis
Yang-ja Lee and Emily Shacter

90 IL-1 Enhances T Cell-Dependent Antibody Production Through Induction of CD40 Ligand and OX40 on T Cells
Susumu Nakae, Masahide Asano, Reiko Horai, Nobuo Sakaguchi, and Yoichiro Iwakura

98 Constitutive Expression of MHC Class II Genes in Melanoma Cell Lines Results from the Transcription of Class II Transactivator Abnormally Initiated from Its B Cell-Specific Promoter
Virginie Deffrennes, Jocelyn Vedrenne, Marie-Claude Stolzenberg, Janet Piskurich, Giovanna Barbieri, Jenny P. Ting, Dominique Charron, and Catherine Alcaïde-Loridan

107 Oral Exposure to Alloantigen Generates Intragraft $CD8^+$ Regulatory Cells
Juan Zhou, Ronald I. Carr, Robert S. Liwski, Andrew W. Stadnyk, and Timothy D. G. Lee

114 Signal Thresholds and Modular Synergy During Expression of Costimulatory Molecules in B Lymphocytes
Krishnamurthy Natarajan, Naresh C. Sahoo, and Kanury V. S. Rao

123 Antibody-Induced Shedding of CD44 from Adherent Cells Is Linked to the Assembly of the Cytoskeleton
Mei Shi, Kathryn Dennis, Jacques J. Peschon, Raman Chandrasekaran, and Katalin Mikecz

132 Enhancement of $CD8^+$ T Cell Responses by ICOS/B7h Costimulation
Jeffrey J. Wallin, Linda Liang, Anastasia Bakardjiev, and William C. Sha

140 CD28-independent Costimulation of T Cells in Alloimmune Responses
Akira Yamada, Koji Kishimoto, Victor M. Dong, Masayuki Sho, Alan D. Salama, Natalie G. Anosova, Gilles Benichou, Didier A. Mandelbrot, Arlene H. Sharpe, Laurence A. Turka, Hugh Auchincloss, Jr., and Mohamed H. Sayegh

147 An Immunodominant MHC Class II-Restricted Tumor Antigen Is Conformation Dependent and Binds to the Endoplasmic Reticulum Chaperone, Calreticulin
Denise Golgher, Firouzeh Korangy, Bin Gao, Kevin Gorski, Elizabeth Jaffee, Michael Edidin, Drew M. Pardoll, and Tim Elliott

156 IL-12 Augments $CD8^+$ T Cell Development for Contact Hypersensitivity Responses and Circumvents Anti-CD154 Antibody-Mediated Inhibition
Anton V. Gorbachev, Nancy A. DiIulio, and Robert L. Fairchild

163 The Role of the CD19/CD21 Complex in B Cell Processing and Presentation of Complement-Tagged Antigens
Anu Cherukuri, Paul C. Cheng, and Susan K. Pierce

173 TNF-α-Induced Sphingosine 1-Phosphate Inhibits Apoptosis Through a Phosphatidylinositol 3-Kinase/Akt Pathway in Human Hepatocytes
Yosuke Osawa, Yoshiko Banno, Masahito Nagaki, David A. Brenner, Takafumi Naiki, Yoshinori Nozawa, Shigeru Nakashima, and Hisataka Moriwaki

181 Functional Heterogeneity of Cytokines and Cytolytic Effector Molecules in Human $CD8^+$ T Lymphocytes
Johan K. Sandberg, Noam M. Fast, and Douglas F. Nixon

188 Generation of Anergic and Potentially Immunoregulatory $CD25^+CD4$ T Cells In Vivo After Induction of Peripheral Tolerance with Intravenous or Oral Antigen
Kristen M. Thorstenson and Alexander Khoruts

196 Rapid Induction of Naive T Cell Apoptosis by Ecto-Nicotinamide Adenine Dinucleotide: Requirement for Mono(ADP-Ribosyl)Transferase 2 and a Downstream Effector
Sahil Adriouch, Wiebke Ohlrogge, Friedrich Haag, Friedrich Koch-Nolte, and Michel Seman

204 Partially Distinct Molecular Mechanisms Mediate Inhibitory FcγRIIB Signaling in Resting and Activated B Cells
Anne Brauweiler, Idan Tamir, Susanne Marschner, Cheryl D. Helgason, and John C. Cambier

212 Memory T Cells Constitute a Subset of the Human $CD8^+CD45RA^+$ Pool with Distinct Phenotypic and Migratory Characteristics
Jeffery M. Faint, Nicola E. Annels, S. John Curnow, Philip Shields, Darrell Pilling, Andrew D. Hislop, Lijun Wu, Arne N. Akbar, Christopher D. Buckley, Paul A. H. Moss, David H. Adams, Alan B. Rickinson, and Mike Salmon

221 Positive Regulatory Role of IL-12 in Macrophages and Modulation by IFN-γ
Ursula Grohmann, Maria L. Belladonna, Carmine Vacca, Roberta Bianchi, Francesca Fallarino, Ciriana Orabona, Maria C. Fioretti, and Paolo Puccetti

228 Regulation of Dendritic Cell Recruitment into Resting and Inflamed Airway Epithelium: Use of Alternative Chemokine Receptors as a Function of Inducing Stimulus
Philip A. Stumbles, Deborah H. Strickland, Carolyn L. Pimm, Stephen F. Proksch, Amanda M. Marsh, Andrew S. McWilliam, Anthony Bosco, Iriani Tobagus, Jennifer A. Thomas, Sylvia Napoli, Amanda E. I. Proudfoot, Timothy N. C. Wells, and Patrick G. Holt

235 Down-Regulation of IL-12 p40 Gene in *Plasmodium berghei*-Infected Mice
Xin Xu, Kohsuke Sumita, Chiguang Feng, Xiaozhong Xiong, Hua Shen, Saho Maruyama, Makoto Kanoh, and Yoshihiro Asano

242 B-Myb Overexpression Results in Activation and Increased Fas/Fas Ligand-Mediated Cytotoxicity of T and NK Cells
Mark A. Powzaniuk, Rossana Trotta, Matthew J. Loza, Amy Harth, Renato V. Iozzo, Lawrence C. Eisenlohr, Bice Perussia, and Bruno Calabretta

250 Pertussis Toxin Inhibits Induction of Tissue-Specific Autoimmune Disease by Disrupting G Protein-Coupled Signals
Shao Bo Su, Phyllis B. Silver, Meifen Zhang, Chi-Chao Chan, and Rachel R. Caspi

MOLECULAR AND STRUCTURAL IMMUNOLOGY

257 Unequal V_H Gene Rearrangement Frequency Within the Large V_H7183 Gene Family Is Not Due to Recombination Signal Sequence Variation, and Mapping of the Genes Shows a Bias of Rearrangement Based on Chromosomal Location
G. Stuart Williams, Alan Martinez, Alina Montalbano, Alan Tang, America Mauhar, Kisani M. Ogwaro, Denise Merz, Christophe Chevillard, Roy Riblet, and Ann J. Feeney

264 Transcription Factor NF-κB Regulates Igλ Light Chain Gene Rearrangement
Heather H. Bendall, Michael L. Sikes, and Eugene M. Oltz

270 Critical Role for CD8 in Binding of MHC Tetramers to TCR: CD8 Antibodies Block Specific Binding of Human Tumor-Specific MHC-Peptide Tetramers to TCR
Galit Denkberg, Cyril J. Cohen, and Yoram Reiter

277 The Sushi Domain of Soluble IL-15 Receptor α Is Essential for Binding IL-15 and Inhibiting Inflammatory and Allogenic Responses In Vitro and In Vivo
Xiao-qing Wei, Michael Orchardson, J. Alastair Gracie, Bernard P. Leung, Bao-mei Gao, Hui Guan, Wanda Niedbala, Gavin K. Paterson, Iain B. McInnes, and Foo Y. Liew

283 IL-1 Induced Chemokine Production Through the Association of Syk with TNF Receptor-Associated Factor-6 in Nasal Fibroblast Lines
Takechiyo Yamada, Shigeharu Fujieda, Shigeru Yanagi, Hirohei Yamamura, Ryoko Inatome, Hideyuki Yamamoto, Hideki Igawa, and Hitoshi Saito

289 Human Notch-1 Inhibits NF-κB Activity in the Nucleus Through a Direct Interaction Involving a Novel Domain
Jinhai Wang, Lesile Shelly, Lucio Miele, Robert Boykins, Michael A. Norcross, and Ennan Guan

296 Structural Effects of Framework Mutations on a Humanized Anti-Lysozyme Antibody
Margaret A. Holmes, Timothy N. Buss, and Jefferson Foote

302 A NF-κB/Sp1 Region Is Essential for Chromatin Remodeling and Correct Transcription of a Human Granulocyte- Macrophage Colony-Stimulating Factor Transgene
Dimitrios Cakouros, Peter N. Cockerill, Andrew G. Bert, Renu Mital, Donna C. Roberts, and M. Frances Shannon

311 The Smad3 Protein Is Involved in TGF-β Inhibition of Class II Transactivator and Class II MHC Expression
Yuanshu Dong, Liping Tang, John J. Letterio, and Etty N. Benveniste

320 Induction of Germline Transcription in the Human TCRγ Locus by STAT5
Hai-Chon Lee, Sang-Kyu Ye, Tasuku Honjo, and Koichi Ikuta

327 Decreased Frequency of Somatic Hypermutation and Impaired Affinity Maturation but Intact Germinal Center Formation in Mice Expressing Antisense RNA to DNA Polymerase ζ
Marilyn Diaz, Laurent K. Verkoczy, Martin F. Flajnik, and Norman R. Klinman

336 Human Thymic Stromal Lymphopoietin Preferentially Stimulates Myeloid Cells
Pedro A. Reche, Vassili Soumelis, Daniel M. Gorman, Teresa Clifford, Man-ru Liu, Marilyn Travis, Sandra M. Zurawski, Jim Johnston, Yong-Jun Liu, Hergen Spits, Rene de Waal Malefyt, Robert A. Kastelein, and J. Fernando Bazan

344 Unstimulated Human CD4 Lymphocytes Express a Cytoplasmic Immature Form of the Common Cytokine Receptor γ-Chain
Lynda Bani, Virginie Pasquier, Marko Kryworuchko, Jean Salamero, and Jacques Thèze

HOST DEFENSE

350 A Distinct Pathway of Cell-Mediated Apoptosis Initiated by Granulysin
Allan A. Kaspar, Satoshi Okada, Jayant Kumar, Francis R. Poulain, Katerina A. Drouvalakis, Ameeta Kelekar, Dennis A. Hanson, Ruth M. Kluck, Yasumichi Hitoshi, Daniel E. Johnson, Christopher J. Froelich, Craig B. Thompson, Donald D. Newmeyer, Alberto Anel, Carol Clayberger, and Alan M. Krensky

357 Protection Against Murine Listeriosis by Oral Vaccination with Recombinant *Salmonella* Expressing Hybrid *Yersinia* Type III Proteins
Holger Rüssmann, Emeka I. Igwe, Jeannette Sauer, Wolf-Dietrich Hardt, Andreas Bubert, and Gernot Geginat

366 IL-8 Production in Human Lung Fibroblasts and Epithelial Cells Activated by the *Pseudomonas* Autoinducer *N*-3-Oxododecanoyl Homoserine Lactone Is Transcriptionally Regulated by NF-κB and Activator Protein-2
Roger S. Smith, Eric R. Fedyk, T. A. Springer, N. Mukaida, Barbara H. Iglewski, and Richard P. Phipps

375 Enhanced Protection Against Fatal Mycobacterial Infection in SCID Beige Mice by Reshaping Innate Immunity with IFN-γ Transgene
Zhou Xing, Anna Zganiacz, Jun Wang, and Sudhir K. Sharma

384 Dendritic Cells Recruitment and In Vivo Priming of $CD8^+$ CTL Induced by a Single Topical or Transepithelial Immunization Via the Buccal Mucosa with Measles Virus Nucleoprotein
Nathalie Etchart, Pierre-Olivier Desmoulins, Karine Chemin, Charles Maliszewski, Bertrand Dubois, Fabian Wild, and Dominique Kaiserlian

392 IFN-γ-Independent Autocrine Cytokine Regulatory Mechanism in Reprogramming of Macrophage Responses to Bacterial Lipopolysaccharide
Ryan Brewington, Manjil Chatterji, Mikhail Zoubine, Roberto N. Miranda, Mari Norimatsu, and Alex Shnyra

399 Cytokine-Responsive Gene-2/IFN-Inducible Protein-10 Expression in Multiple Models of Liver and Bile Duct Injury Suggests a Role in Tissue Regeneration
Leonidas G. Koniaris, Teresa Zimmers-Koniaris, Edward C. Hsiao, Kenneth Chavin, James V. Sitzmann, and Joshua M. Farber

407 Impaired Mucosal Immunity in L-Selectin-Deficient Mice Orally Immunized with a *Salmonella* Vaccine Vector
David W. Pascual, Michelle D. White, Trina Larson, and Nancy Walters

416 Activation of Toll-Like Receptor-2 by Glycosylphosphatidylinositol Anchors from a Protozoan Parasite
Marco A. S. Campos, Igor C. Almeida, Osamu Takeuchi, Shizuo Akira, Eneida P. Valente, Daniela O. Procópio, Luiz R. Travassos, Jason A. Smith, Douglas T. Golenbock, and Ricardo T. Gazzinelli

424 Role of Effector Cell-Derived IL-4, IL-5, and Perforin in Early and Late Stages of Type 2 CD8 Effector Cell-Mediated Tumor Rejection
Mark J. Dobrzanski, Joyce B. Reome, and Richard W. Dutton

435 Induction of Apoptosis in Human T Cells by *Actinobacillus actinomycetemcomitans* Cytolethal Distending Toxin Is a Consequence of G_2 Arrest of the Cell Cycle
Bruce J. Shenker, Roselle H. Hoffmaster, Ali Zekavat, Noboru Yamaguchi, Edward T. Lally, and Donald R. Demuth

442 Lacto-*N*-fucopentaose III Found on *Schitosoma mansoni* Egg Antigens Functions as Adjuvant for Proteins by Inducing Th2-Type Response
Mitsuhiro Okano, Abhay R. Satoskar, Kazunori Nishizaki, and Donald A. Harn, Jr.

INFLAMMATION

451 Serum Proteins Modified by Neutrophil-Derived Oxidants as Mediators of Neutrophil Stimulation
Günther F. Körmöczi, Ulrike M. Wölfel, Alexander R. Rosenkranz, Walter H. Hörl, Rainer Oberbauer, and Gerhard J. Zlabinger

461 Role of Mitogen-Activated Protein Kinase-Mediated Cytosolic Phospholipase A_2 Activation in Arachidonic Acid Metabolism in Human Eosinophils
Xiangdong Zhu, Hiroyuki Sano, Kwang Pyo Kim, Akiko Sano, Evan Boetticher, Nilda M. Muñoz, Wonhwa Cho, and Alan R. Leff

469 Microsomal Prostaglandin E Synthase Is Regulated by Proinflammatory Cytokines and Glucocorticoids in Primary Rheumatoid Synovial Cells
Dirk O. Stichtenoth, Staffan Thorén, Huimin Bian, Marc Peters-Golden, Per-Johan Jakobsson, and Leslie J. Crofford

475 G_i-Mediated Activation of the Syk Kinase by the Receptor Mimetic Basic Secretagogues of Mast Cells: Role in Mediating Arachidonic Acid/Metabolites Release
Irit Shefler and Ronit Sagi-Eisenberg

482 Diphosphoryl Lipid A from *Rhodobacter sphaeroides* Blocks the Binding and Internalization of Lipopolysaccharide in RAW 264.7 Cells
Galina D. Kutuzova, Ralph M. Albrecht, Chris M. Erickson, and Nilofer Qureshi

490 Gammalinolenic Acid, an Unsaturated Fatty Acid with Anti-Inflammatory Properties, Blocks Amplification of IL-1β Production by Human Monocytes
Robert K. Furse, Ronald G. Rossetti, and Robert B. Zurier

497 Both E6 and E7 Oncoproteins of Human Papillomavirus 16 Inhibit IL-18-Induced IFN-γ Production in Human Peripheral Blood Mononuclear and NK Cells
Shin-Je Lee, Young-Sik Cho, Min-Chul Cho, Jung-Hyun Shim, Kyung-Ae Lee, Kwang-Kjune Ko, Yong Kyung Choe, Sue-Nie Park, Tomoaki Hoshino, SooHyun Kim, Charles A. Dinarello, and Do-Young Yoon

505 Kaposi's Sarcoma-Associated Herpesvirus G Protein-Coupled Receptor Constitutively Activates NF-κB and Induces Proinflammatory Cytokine and Chemokine Production Via a C-Terminal Signaling Determinant
Mario Schwarz and Philip M. Murphy

514 Dissection of the Intracellular Pathways in Hepatocytes Suggests a Role for Jun Kinase and IFN Regulatory Factor-1 in Con A-Induced Liver Failure
Konrad Streetz, Bastian Fregien, Jörg Plümpe, Kerstin Körber, Stefan Kubicka, G. Sass, Stephan C. Bischoff, Michael P. Manns, Gisa Tiegs. and Christian Trautwein

524 Stem Cell Factor-Induced Leukotriene B_4 Production Cooperates with Eotaxin to Mediate the Recruitment of Eosinophils During Allergic Pleurisy in Mice
André Klein, André Talvani, Patrícia M. R. Silva, Marco A. Martins, Tim N. C. Wells, Amanda Proudfoot, Nick W. Luckacs, and Mauro M. Teixeira

CLINICAL IMMUNOLOGY

532 Critical Role for IL-4 in the Development of Transplant Arteriosclerosis in the Absence of CD40-CD154 Costimulation
Stephan M. Ensminger, Bernd M. Spriewald, Henrik V. Sorensen, Oliver Witzke, Emily G. Flashman, Andrew Bushell, Peter J. Morris, Marlene L. Rose, Amin Rahemtulla, and Kathryn J. Wood

542 Estrogen Treatment Down-Regulates TNF-α Production and Reduces the Severity of Experimental Autoimmune Encephalomyelitis in Cytokine Knockout Mice
Atsushi Ito, Bruce F. Bebo, Jr., Agata Matejuk, Alex Zamora, Marc Silverman, Amber Fyfe-Johnson, and Halina Offner

553 Suppression of IL-2-Induced T Cell Proliferation and Phosphorylation of STAT3 and STAT5 by Tumor-Derived TGFβ Is Reversed by IL-15
John D. M. Campbell, Gordon Cook, Susan E. Robertson, Alasdair Fraser, Kelly S. Boyd, J. Alastair Gracie, and Ian M. Franklin

562 T Cell Epitope Mapping of the Smith Antigen Reveals That Highly Conserved Smith Antigen Motifs Are the Dominant Target of T Cell Immunity in Systemic Lupus Erythematosus
Beth L. Talken, Kim R. Schäfermeyer, Craig W. Bailey, David R. Lee, and Robert W. Hoffman

569 Therapeutic Alteration of Insulin-Dependent Diabetes Mellitus Progression by T Cell Tolerance to Glutamic Acid Decarboxylase 65 Peptides In Vitro and In Vivo
Stephen S. Wilson, Todd C. White, and Dominick DeLuca

578 A Retro-Inverso Peptide Mimic of CD28 Encompassing the MYPPPY Motif Adopts a Polyproline Type II Helix and Inhibits Encephalitogenic T Cells In Vitro
Mythily Srinivasan, Richard M. Wardrop, Ingrid E. Gienapp, Scott S. Stuckman, Caroline C. Whitacre, and Pravin T. P. Kaumaya

586 Plasmid DNAs Encoding Insulin and Glutamic Acid Decarboxylase 65 Have Distinct Effects on the Progression of Autoimmune Diabetes in Nonobese Diabetic Mice
Donald J. Weaver, Jr., Bo Liu, and Roland Tisch

593 Correction

595 Author Index

609 AAI Membership Application

610 AAI Trainee Membership Application

VOLUME 167 / Nº 2 / JULY 15, 2001

PRESIDENTIAL ADDRESS

617 Presidential Address to The American Association of Immunologists: Major Histocompatibility Complex Proteins and TCRs: Do They Really Go Together Like a Horse and Carriage?
Philippa Marrack, Jeremy Bender, Michael Jordan, William Rees, Jennifer Robertson, Brian C. Schaefer, and John Kappler

CUTTING EDGE

623 Cutting Edge: IFN-Inducible ELR$^-$ CXC Chemokines Display Defensin-Like Antimicrobial Activity
Alexander M. Cole, Tomas Ganz, Amy M. Liese, Marie D. Burdick, Lide Liu, and Robert M. Strieter

628 Cutting Edge: Differential Requirements for Stat4 in Expression of Glycosyltransferases Responsible for Selectin Ligand Formation in Th1 Cells
Samuel J. White, Gregory H. Underhill, Mark H. Kaplan, and Geoffrey S. Kansas

632 Cutting Edge: Editing of Recycling Class II:Peptide Complexes by HLA-DM
Sulabha S. Pathak, John D. Lich, and Janice S. Blum

636 Cutting Edge: Protein Kinase Cβ Expression Is Critical for Export of IL-2 from T Cells
Aideen Long, Dermot Kelleher, Sara Lynch, and Yuri Volkov

641 Cutting Edge: Integration of Human T Lymphocyte Cytoskeleton by the Cytolinker Plectin
Martin J. Brown, John A. Hallam, Yin Liu, Kenneth M. Yamada, and Stephen Shaw

CELLULAR IMMUNOLOGY AND IMMUNE REGULATION

647 Chromatin-Independent Binding of Serum Amyloid P Component to Apoptotic Cells
Atoosa Familian, Bas Zwart, Han G. Huisman, Irma Rensink, Dorina Roem, Peter L. Hordijk, Lucien A. Aarden, and C. Erik Hack

655 Expansion of the Antigenic Repertoire of a Single T Cell Receptor upon T Cell Activation
Abdelaziz Amrani, Pau Serra, Jun Yamanouchi, Jacqueline D. Trudeau, Rusung Tan, John F. Elliott, and Pere Santamaria

667 Antigen Presentation by Liver Cells Controls Intrahepatic T Cell Trapping, Whereas Bone Marrow-Derived Cells Preferentially Promote Intrahepatic T Cell Apoptosis
Wajahat Z. Mehal, Francesco Azzaroli, and I. Nicholas Crispe

674 Fas Ligand (CD95L) Protects Neurons Against Perforin-Mediated T Lymphocyte Cytotoxicity
Isabelle Medana, Zhaoxia Li, Alexander Flügel, Jürg Tschopp, Hartmut Wekerle, and Harald Neumann

682 The Peyer's Patch Microenvironment Suppresses T Cell Responses to Chemokines and Other Stimuli
Sirid-Aimée Kellermann and Leslie M. McEvoy

691 A Genetic Model of Stress Displays Decreased Lymphocytes and Impaired Antibody Responses Without Altered Susceptibility to *Streptococcus pneumoniae*
Susan E. Murray, Holly R. Lallman, Amanda D. Heard, Marvin B. Rittenberg, and Mary P. Stenzel-Poore

699 Competitive Inhibition In Vivo and Skewing of the T Cell Repertoire of Antigen-Specific CTL Priming by an Anti-Peptide-MHC Monoclonal Antibody
Doo Hyun Chung, Igor M. Belyakov, Michael A. Derby, Jian Wang, Lisa F. Boyd, Jay A. Berzofsky, and David H. Margulies

708 IL-6 Inhibits the Tolerogenic Function of CD8α$^+$ Dendritic Cells Expressing Indoleamine 2,3-Dioxygenase
Ursula Grohmann, Francesca Fallarino, Roberta Bianchi, Maria Laura Belladonna, Carmine Vacca, Ciriana Orabona, Catherine Uyttenhove, Maria Cristina Fioretti, and Paolo Puccetti

715 Enforced Expression of GATA-3 During T Cell Development Inhibits Maturation of CD8 Single-Positive Cells and Induces Thymic Lymphoma in Transgenic Mice
Martijn C. Nawijn, Rita Ferreira, Gemma M. Dingjan, Olev Kahre, Dubravka Drabek, Alar Karis, Frank Grosveld, and Rudolf W. Hendriks

724 Enforced Expression of GATA-3 in Transgenic Mice Inhibits Th1 Differentiation and Induces the Formation of a T1/ST2-Expressing Th2-Committed T Cell Compartment In Vivo
Martijn C. Nawijn, Gemma M. Dingjan, Rita Ferreira, Bart N. Lambrecht, Alar Karis, Frank Grosveld, Huub Savelkoul, and Rudolf W. Hendriks

733 B Cell Receptor Cross-Linking Triggers a Caspase-8-Dependent Apoptotic Pathway That Is Independent of the Death Effector Domain of Fas-Associated Death Domain Protein
Laurence Besnault, Nicolas Schrantz, Marie Thérèse Auffredou, Gérald Leca, Marie Françoise Bourgeade, and Aimé Vazquez

741 The Dendritic Cell Populations of Mouse Lymph Nodes
Sandrine Henri, David Vremec, Arun Kamath, Jason Waithman, Stuart Williams, Christophe Benoist, Kim Burnham, Sem Saeland, Emanuela Handman, and Ken Shortman

749 IL-12 Decreases Activation-Induced Cell Death in Human Naive Th Cells Costimulated by Intercellular Adhesion Molecule-1. I. IL-12 Alters Caspase Processing and Inhibits Enzyme Function
Ellen M. Palmer, Lili Farrokh-Siar, Jean Maguire van Seventer, and Gijs A. van Seventer

759 The Binding of Thymus Leukemia (TL) Antigen Tetramers to Normal Intestinal Intraepithelial Lymphocytes and Thymocytes
Kunio Tsujimura, Yuichi Obata, Yasue Matsudaira, Satoshi Ozeki, Kazuhiro Yoshikawa, Shinsuke Saga, and Toshitada Takahashi

765 Wnt Signaling Regulates Hemopoiesis Through Stromal Cells
Toshiyuki Yamane, Takahiro Kunisada, Hirotake Tsukamoto, Hidetoshi Yamazaki, Hitoshi Niwa, Shinji Takada, and Shin-Ichi Hayashi

773 Regulation of TGF-β Response During T Cell Activation Is Modulated by IL-10
Françoise Cottrez and Hervé Groux

779 A Role for IL-12 Receptor Expression and Signal Transduction in Host Defense in Leprosy
Jenny Kim, Koichi Uyemura, Melissa K. Van Dyke, Annaliza J. Legaspi, Thomas H. Rea, Ke Shuai, and Robert L. Modlin

787 Identification of New Epitopes from Four Different Tumor-Associated Antigens: Recognition of Naturally Processed Epitopes Correlates with HLA-A*0201-Binding Affinity
Elissa Keogh, John Fikes, Scott Southwood, Esteban Celis, Robert Chesnut, and Alessandro Sette

797 Engagement of FcεRI on Human Monocytes Induces the Production of IL-10 and Prevents Their Differentiation in Dendritic Cells
Natalija Novak, Thomas Bieber, and Norito Katoh

805 Peripheral T Cells Become Sensitive to Glucocorticoid- and Stress-Induced Apoptosis in Transgenic Mice Overexpressing SRG3
Sunmi Han, Heonsik Choi, Myung-gon Ko, Young I. Choi, Dong H. Sohn, Joong K. Kim, Dongho Shin, Heekyoung Chung, Han W. Lee, Jae-B. Kim, Sang D. Park, and Rho H. Seong

MOLECULAR AND STRUCTURAL IMMUNOLOGY

811 A Pivotal Role for DNase I-Sensitive Regions 3b and/or 4 in the Induction of Somatic Hypermutation of IgH Genes
Akiko Terauchi, Katsuhiko Hayashi, Daisuke Kitamura, Yuko Kozono, Noboru Motoyama, and Takachika Azuma

821 Monomeric Class I Molecules Mediate TCR/CD3ε/CD8 Interaction on the Surface of T Cells
Matthew S. Block, Aaron J. Johnson, Yanice Mendez-Fernandez, and Larry R. Pease

827 CD28 Signaling Augments Elk-1-Dependent Transcription at the c-*fos* Gene During Antigen Stimulation
Wei Li, Carmella D. Whaley, Jody L. Bonnevier, Anna Mondino, Molly E. Martin, Kjersti M. Aagaard-Tillery, and Daniel L. Mueller

836 Functional Evidence That Conserved TCR CDRα3 Loop Docking Governs the Cross-Recognition of Closely Related Peptide:Class I Complexes
Ilhem Messaoudi, Joel LeMaoult, Beatrix M. Metzner, Michael J. Miley, Daved H. Fremont, and Janko Nikolich-Žugich

844 Signal Transduction by Human-Restricted FcγRIIa Involves Three Distinct Cytoplasmic Kinase Families Leading to Phagocytosis
Damon S. Cooney, Hyewon Phee, Anand Jacob, and K. Mark Coggeshall

855 Unexpected Characteristics of the IFN-γ Reporters in Nontransformed T Cells
Hong Zhu, Jianfei Yang, Theresa L. Murphy, Wenjun Ouyang, Fred Wagner, Arman Saparov, Casey T. Weaver, and Kenneth M. Murphy

866 Chromatin Remodeling at the Ig Loci Prior to V(D)J Recombination
Jérôme Maës, Laura P. O'Neill, Patricia Cavelier, Bryan M. Turner, François Rougeon, and Michele Goodhardt

875 Functional CD4 T Cells after Intercellular Molecular Transfer of OX40 Ligand
Eishi Baba, Yoshiaki Takahashi, Juliane Lichtenfeld, Reiko Tanaka, Atsushi Yoshida, Kazuo Sugamura, Naoki Yamamoto, and Yuetsu Tanaka

884 Regulation of MHC Class II Antigen Presentation by Sorting of Recycling HLA-DM/DO and Class II within the Multivesicular Body
Marcel van Lith, Marieke van Ham, Alexander Griekspoor, Esther Tjin, Desiree Verwoerd, Jero Calafat, Hans Janssen, Eric Reits, Liesbeth Pastoors, and Jacques Neefjes

HOST DEFENSE

893 Oxidative Responses of Human and Murine Macrophages During Phagocytosis of *Leishmania chagasi*
Kira R. Gantt, Todd L. Goldman, Michael L. McCormick, Melissa A. Miller, Selma M. B. Jeronimo, Eliana T. Nascimento, Bradley E. Britigan, and Mary E. Wilson

902 IFN-γ Overproduction and High Level Apoptosis Are Associated with High but Not Low Virulence *Toxoplasma gondii* Infection
L. Cristina Gavrilescu and Eric Y. Denkers

910 Toll-Like Receptor 2-Dependent Inhibition of Macrophage Class II MHC Expression and Antigen Processing by 19-kDa Lipoprotein of *Mycobacterium tuberculosis*
Erika H. Noss, Rish K. Pai, Timothy J. Sellati, Justin D. Radolf, John Belisle, Douglas T. Golenbock, W. Henry Boom, and Clifford V. Harding

919 A Dominant Role for Fcγ Receptors in Antibody-Dependent Corneal Inflammation
Laurie R. Hall, Eugenia Diaconu, and Eric Pearlman

926 Negative Selection of T Cells by *Helicobacter pylori* as a Model for Bacterial Strain Selection by Immune Evasion
Jide Wang, Edward G. Brooks, Kathleen B. Bamford, Timothy L. Denning, Jacques Pappo, and Peter B. Ernst

935 Regulation of Complement Classical Pathway by Association of C4b-Binding Protein to the Surfaces of SK-OV-3 and Caov-3 Ovarian Adenocarcinoma Cells
Mikko T. Holmberg, Anna M. Blom, and Seppo Meri

940 Modulation of Macrophage Cytokine Production by ES-62, a Secreted Product of the Filarial Nematode *Acanthocheilonema viteae*
Helen S. Goodridge, Emma H. Wilson, William Harnett, Carol C. Campbell, Margaret M. Harnett, and Foo Y. Liew

946 Overexpression of IL-15 In Vivo Enhances Protection Against *Mycobacterium bovis* Bacillus Calmette-Guérin Infection Via Augmentation of NK and T Cytotoxic 1 Responses
Masayuki Umemura, Hitoshi Nishimura, Kenji Hirose, Tetsuya Matsuguchi, and Yasunobu Yoshikai

INFLAMMATION

957 IL-12/IL-18-Dependent IFN-γ Release by Murine Dendritic Cells
Detlef Stober, Reinhold Schirmbeck, and Jörg Reimann

966 Inhibition of Endotoxin-Induced Macrophage Chemokine Production by Vasoactive Intestinal Peptide and Pituitary Adenylate Cyclase-Activating Polypeptide In Vitro and In Vivo
Mario Delgado and Doina Ganea

976 Glucocorticoid Augmentation of Macrophage Capacity for Phagocytosis of Apoptotic Cells Is Associated with Reduced p130Cas Expression, Loss of Paxillin/pyk2 Phosphorylation, and High Levels of Active Rac
Katherine M. Giles, Katherine Ross, Adriano G. Rossi, Neil A. Hotchin, Christopher Haslett, and Ian Dransfield

987 Cooperation of Toll-Like Receptor 2 and 6 for Cellular Activation by Soluble Tuberculosis Factor and *Borrelia burgdorferi* Outer Surface Protein A Lipoprotein: Role of Toll-Interacting Protein and IL-1 Receptor Signaling Molecules in Toll-Like Receptor 2 Signaling
Yonca Bulut, Emmanuelle Faure, Lisa Thomas, Ozlem Equils, and Moshe Arditi

995 Human Eosinophils and Human High Affinity IgE Receptor Transgenic Mouse Eosinophils Express Low Levels of High Affinity IgE Receptor, but Release IL-10 upon Receptor Activation
Hiroyuki Kayaba, David Dombrowicz, Gaetane Woerly, Jean-Paul Papin, Sylvie Loiseau, and Monique Capron

1004 IL-1-Independent Role of IL-17 in Synovial Inflammation and Joint Destruction During Collagen-Induced Arthritis
Erik Lubberts, Leo A. B. Joosten, Birgitte Oppers, Liduine van den Bersselaar, Christina J. J. Coenen-de Roo, Jay K. Kolls, Paul Schwarzenberger, Fons A. J. van de Loo, and Wim B. van den Berg

1014 Interaction of Mite Allergens Der P3 and Der P9 with Protease-Activated Receptor-2 Expressed by Lung Epithelial Cells
Guo Sun, Martin A. Stacey, Matthias Schmidt, Luca Mori, and Sabrina Mattoli

1022 Distinct Tissue Site-Specific Requirements of Mast Cells and Complement Components C3/C5a Receptor in IgG Immune Complex-Induced Injury of Skin and Lung
Ulrich Baumann, Nelli Chouchakova, Britta Gewecke, Jörg Köhl, Michael C. Carroll, Reinhold E. Schmidt, and J. Engelbert Gessner

1028 Differential Regulation of Chemokine Production in Human Peritoneal Mesothelial Cells: IFN-γ Controls Neutrophil Migration Across the Mesothelium In Vitro and In Vivo
Rachel L. Robson, Rachel M. McLoughlin, Janusz Witowski, Pius Loetscher, Thomas S. Wilkinson, Simon A. Jones, and Nicholas Topley

1039 Functional Expression of IL-12 Receptor by Human Eosinophils: IL-12 Promotes Eosinophil Apoptosis
Esra Nutku, Qianli Zhuang, Abdelillah Soussi-Gounni, Fadi Aris, Bruce D. Mazer, and Qutayba Hamid

1047 Tissue-Type Plasminogen Activator Deficiency Exacerbates Arthritis
Yuan H. Yang, Peter Carmeliet, and John A. Hamilton

1053 Adenoviral Delivery of Human and Viral IL-10 in Murine Sepsis
Rebecca M. Minter, Maria A. Ferry, Michelle E. Murday, Cynthia L. Tannahill, Frances R. Bahjat, Caroline Oberholzer, Andreas Oberholzer, Drake LaFace, Beth Hutchins, Shufen Wen, Jeremy Shinoda, Edward M. Copeland III, and Lyle L. Moldawer

1060 Respiratory Syncytial Virus Predisposes Mice to Augmented Allergic Airway Responses Via IL-13-Mediated Mechanisms
Nicholas W. Lukacs, Kim K. Tekkanat, Aaron Berlin, Cory M. Hogaboam, Allison Miller, Holly Evanoff, Pam Lincoln, and Hussien Maassab

CLINICAL IMMUNOLOGY

1066 H-2D End Confers Dominant Protection from IL-10-Mediated Acceleration of Autoimmune Diabetes in the Nonobese Diabetic Mouse
Antonio La Cava, Balaji Balasa, Augusta Good, Kurt van Gunst, Nadja Jung, and Nora Sarvetnick

1072 Lymphoid Neogenesis in Rheumatoid Synovitis
Seisuke Takemura, Andrea Braun, Cynthia Crowson, Paul J. Kurtin, Robert H. Cofield, William M. O'Fallon, Jörg J. Goronzy, and Cornelia M. Weyand

1081 Lipopolysaccharide-Activated B Cells Down-Regulate Th1 Immunity and Prevent Autoimmune Diabetes in Nonobese Diabetic Mice
Jide Tian, Dan Zekzer, Lorraine Hanssen, Yuxin Lu, Angelica Olcott, and Daniel L. Kaufman

1090 $CD4^+$ T Cells Engrafted with a Recombinant Immunoreceptor Efficiently Lyse Target Cells in a MHC Antigen- and Fas-Independent Fashion
Andreas Hombach, Claudia Heuser, Thomas Marquardt, Anja Wieczarkowiecz, Volker Groneck, Christoph Pohl, and Hinrich Abken

1097 Immunofluorescence Detection of δ Opioid Receptors (DOR) on Human Peripheral Blood $CD4^+$ T Cells and DOR-Dependent Suppression of HIV-1 Expression
Burt M. Sharp, K. McAllen, Genya Gekker, N. A. Shahabi, and Phillip K. Peterson

1103 Costimulation Blockade, Busulfan, and Bone Marrow Promote Titratable Macrochimerism, Induce Transplantation Tolerance, and Correct Genetic Hemoglobinopathies with Minimal Myelosuppression
Andrew B. Adams, Megan M. Durham, Leslie Kean, Nozomu Shirasugi, Jongwon Ha, Matthew A. Williams, Phyllis A. Rees, Michael C. Cheung, Stephen Mittelstaedt, Adam W. Bingaman, David R. Archer, Thomas C. Pearson, Edmund K. Waller, and Christian P. Larsen

1112 Defective $CD8^+$ T Cell Peripheral Tolerance in Nonobese Diabetic Mice
Huub T. C. Kreuwel, Judith A. Biggs, Ingrid M. Pilip, Eric G. Pamer, David Lo, and Linda A. Sherman

1118 Acetylcholine Receptor Peptide Recognition in HLA DR3-Transgenic Mice: In Vivo Responses Correlate with MHC-Peptide Binding
Raghavanpillai Raju, Edward G. Spack, and Chella S. David

1125 Failure to Induce Neonatal Tolerance in Mice That Lack Both IL-4 and IL-13 but Not in Those That Lack IL-4 Alone
Yoshihiko Inoue, Bogumila T. Konieczny, Maylene E. Wagener, Andrew N. J. McKenzie, and Fadi G. Lakkis

1129 Author Index

1131 AAI Membership Application

1132 AAI Trainee Membership Application

VOLUME 167 / Nº 3 / AUGUST 1, 2001

CUTTING EDGE

1137 Cutting Edge: Control of $CD8^+$ T Cell Activation by $CD4^+CD25^+$ Immunoregulatory Cells
Ciriaco A. Piccirillo and Ethan M. Shevach

1141 Cutting Edge: The Mouse NK Cell-Associated Antigen Recognized by DX5 Moncoclonal Antibody is CD49b (α_2 Integrin, Very Late Antigen-2)
Hisashi Arase, Takashi Saito, Joseph H. Phillips, and Lewis L. Lanier

CELLULAR IMMUNOLOGY AND IMMUNE REGULATION

1145 Unexpected Transcriptional Induction of Monocyte Chemoattractant Protein 1 by Proteasome Inhibition: Involvement of the c-Jun N-Terminal Kinase-Activator Protein 1 Pathway
Kenji Nakayama, Akira Furusu, Qihe Xu, Tsuneo Konta, and Masanori Kitamura

1151 Clonotypic Structure of the Human $CD4^+$ Memory T Cell Response to Cytomegalovirus
Arlene D. Bitmansour, Shar L. Waldrop, Christine J. Pitcher, Elham Khatamzas, Florian Kern, Vernon C. Maino, and Louis J. Picker

1164 CD1d-Restricted NKT Cells: An Interstrain Comparison
Kirsten J. L. Hammond, Daniel G. Pellicci, Lynn D. Poulton, Olga V. Naidenko, Anthony A. Scalzo, Alan G. Baxter, and Dale I. Godfrey

1174 Rejection of Mouse Cardiac Allografts by Costimulation in *trans*
Didier A. Mandelbrot, Koji Kishimoto, Hugh Auchincloss, Jr., Arlene H. Sharpe, and Mohamed H. Sayegh

1179 IL-15 Is Expressed by Dendritic Cells in Response to Type I IFN, Double-Stranded RNA, or Lipopolysaccharide and Promotes Dendritic Cell Activation
Fabrizio Mattei, Giovanna Schiavoni, Filippo Belardelli, and David F. Tough

1188 Mature Dendritic Cells Prime Functionally Superior Melan-A-Specific $CD8^+$ Lymphocytes as Compared with Nonprofessional APC
Mariolina Salio, Dawn Shepherd, P. Rod Dunbar, Michael Palmowski, Kristine Murphy, Lijun Wu, and Vincenzo Cerundolo

1198 CD44 Is the Physiological Trigger of Fas Up-Regulation on Rheumatoid Synovial Cells
Koichi Fujii, Yuko Fujii, Stefan Hubscher, and Yoshiya Tanaka

1204 A Novel Autocrine Pathway of Tumor Escape from Immune Recognition: Melanoma Cell Lines Produce a Soluble Protein That Diminishes Expression of the Gene Encoding the Melanocyte Lineae Melan-A/MART-1 Antigen Through Down-Modulation of Its Promoter
James T. Kurnick, Teresa Ramirez-Montagut, Lenora A. Boyle, David M. Andrews, Franco Pandolfi, Paul J. Durda, David Butera, Ian S. Dunn, Elizabeth M. Benson, Sam J. P. Gobin, and Peter J. van den Elsen

1212 Differences in the Expression of Human Class I MHC Alleles and Their Associated Peptides in the Presence of Proteasome Inhibitors
Chance John Luckey, Jarrod A. Marto, Megan Partridge, Ed Hall, Forest M. White, John D. Lippolis, Jeffrey Shabanowitz, Donald F. Hunt, and Victor H. Engelhard

1222 A Role of the Mitochondrial Apoptosis-Inducing Factor in Granulysin-Induced Apoptosis
Julián Pardo, Patricia Pérez-Galán, Susana Gamen, Isabel Marzo, Inmaculada Monleón, Allan A. Kaspar, Santos A. Susín, Guido Kroemer, Alan M. Krensky, Javier Naval, and Alberto Anel

1230 IL-4 Influences Apoptosis of Mycobacterium-Reactive Lymphocytes in the Presence of TNF-α
Geok Teng Seah and Graham A. W. Rook

1238 Human IL-18 Receptor and ST2L Are Stable and Selective Markers for the Respective Type 1 and Type 2 Circulating Lymphocytes
Woon Ling Chan, Nada Pejnovic, Christine A. Lee, and Nadia A. Al-Ali

1245 $CD4^+CD25^{high}$ Regulatory Cells in Human Peripheral Blood
Clare Baecher-Allan, Julia A. Brown, Gordon J. Freeman, and David A. Hafler

1254 A V_H12 Transgenic Mouse Exhibits Defects in Pre-B Cell Development and Is Unable to Make IgM^+ B Cells
Hongsheng Wang, Jian Ye, Larry W. Arnold, Suzanne K. McCray, and Stephen H. Clarke

1263 Positive Signaling Through CD72 Induces Mitogen-Activated Protein Kinase Activation and Synergizes with B Cell Receptor Signals to Induce X-Linked Immunodeficiency B Cell Proliferation
Hsin-Jung Wu, Chandrasekar Venkataraman, Steven Estus, Chen Dong, Roger J. Davis, Richard A. Flavell, and Subbarao Bondada

1274 Processing of Exogenous Antigens for Presentation by Class I MHC Molecules Involves Post-Golgi Peptide Exchange Influenced by Peptide-MHC Complex Stability and Acidic pH
Peter J. Chefalo and Clifford V. Harding

1283 Multiple Paths for Activation of Naive $CD8^+$ T Cells: CD4-Independent Help
Bo Wang, Christopher C. Norbury, Roberta Greenwood, Jack R. Bennink, Jonathan W. Yewdell, and Jeffrey A. Frelinger

1290 Minimal Requirements for IgE-Mediated Regulation of Surface FcεRI
Teresa A. Borkowski, Marie-Hélène Jouvin, Shih-Yao Lin, and Jean-Pierre Kinet

1297 Recombinant Adenovirus Coexpressing Covalent Peptide/MHC Class II Complex and B7-1: In Vitro and In Vivo Activation of Myelin Basic Protein-Specific T Cells
Jiang Chen, Brigitte T. Huber, Richard J. Grand, and Wei Li

1306 An Absolute Requirement for STAT4 and a Role for IFN-γ as an Amplifying Factor in IL-12 Induction of the Functional IL-18 Receptor Complex
Masakiyo Nakahira, Michio Tomura, Masayuki Iwasaki, Hyun-Jong Ahn, Yang Bian, Toshiyuki Hamaoka, Tsunetaka Ohta, Masashi Kurimoto, and Hiromi Fujiwara

1313 4-1BB Ligand Induces Cell Division, Sustains Survival, and Enhances Effector Function of CD4 and CD8 T Cells with Similar Efficacy
Jennifer L. Cannons, Peggy Lau, Birinder Ghumman, Mark A. DeBenedette, Hideo Yagita, Ko Okumura, and Tania H. Watts

1325 Heterogeneity of Channel Catfish CTL with Respect to Target Recognition and Cytotoxic Mechanisms Employed
He Zhou, Tor B. Stuge, Norman W. Miller, Eva Bengten, John P. Naftel, Jayne M. Bernanke, V. Gregory Chinchar, L. William Clem and Melanie Wilson

1333 The Role of p53 in Regulating Antiviral T Cell Responses
Jason M. Grayson, J. Gibson Lanier, John D. Altman, and Rafi Ahmed

1338 Transgenic Expression of CD95 Ligand on Thyroid Follicular Cells Confers Immune Privilege upon Thyroid Allografts
Léa Tourneur, Benoit Malassagne, Frédéric Batteux, Monique Fabre, Sylvie Mistou, Eliette Lallemand, Patrick Lores, and Gilles Chiocchia

1347 Enhanced Proliferation and Increased IFN-γ Production in T Cells by Signal Transduced Through TNF-Related Apoptosis-Inducing Ligand
Ai-Hsiang Chou, Hwei-Fang Tsai, Ling-Li Lin, Shie-Liang Hsieh, Ping-I Hsu, and Ping-Ning Hsu

1353 A T Cell Clone's Avidity Is a Function of Its Activation State
Maike D. Hesse, Alexey Y. Karulin, Bernhard O. Boehm, Paul V. Lehmann, and Magdalena Tary-Lehmann

1362 Cross-Linking of EphB6 Resulting in Signal Transduction and Apoptosis in Jurkat Cells
Hongyu Luo, Xiaochun Wan, Yulian Wu, and Jiangping Wu

1371 H2-O Inhibits Presentation of Bacterial Superantigens, but Not Endogenous Self Antigens
Ling Qi and Suzanne Ostrand-Rosenberg

1379 Antibody-Independent Antiviral Function of Memory $CD4^+$ T Cells In Vivo Requires Regulatory Signals from $CD8^+$ Effector T Cells
Weimin Zhong, Alan D. Roberts, and David L. Woodland

1387 A Common Pathway for Dendritic Cell and Early B Cell Development
David Izon, Kristina Rudd, William DeMuth, Warren S. Pear, Cynthia Clendenin, R. Coleman Lindsley, and David Allman

1393 Development and Maintenance of a $B220^-$ Memory B Cell Compartment
David J. Driver, Louise J. McHeyzer-Williams, Melinda Cool, Daniel B. Stetson, and Michael G. McHeyzer-Williams

1406 Sendai Virus Fusion Protein-Mediates Simultaneous Induction of MHC Class I/II-Dependent Mucosal and Systemic Immune Responses Via the Nasopharyngeal-Associated Lymphoreticular Tissue Immune System
Jun Kunisawa, Tsuyoshi Nakanishi, Ichiro Takahashi, Akiko Okudaira, Yasuo Tsutsumi, Kazufumi Katayama, Shinsaku Nakagawa, Hiroshi Kiyono, and Tadanori Mayumi

1413 Activating Immunity in the Liver. I. Liver Dendritic Cells (but Not Hepatocytes) Are Potent Activators of IFN-γ Release by Liver NKT Cells
Zlatko Trobonjaca, Frank Leithäuser, Peter Möller, Reinhold Schirmbeck, and Jörg Reimann

1423 IL-12 Induction by a Th1-Inducing Adjuvant In Vivo: Dendritic Cell Subsets and Regulation by IL-10
Li-Yun Huang, Caetano Reis e Sousa, Yasushi Itoh, John Inman, and Dorothy E. Scott

Molecular and Structural Immunology

1431 Cellular Activation of Leukocyte Function-Associated Antigen-1 and Its Affinity Are Regulated at the I Domain Allosteric Site
Mark L. Lupher, Jr., Edith A. S. Harris, Chan R. Beals, LiMing Sui, Robert C. Liddington, and Donald E. Staunton

1440 Two Novel IL-1 Family Members, IL-1δ and IL-1ε, Function as an Antagonist and Agonist of NF-κB Activation Through the Orphan IL-1 Receptor-Related Protein 2
Reno Debets, Jackie C. Timans, Bernhard Homey, Sandra Zurawski, Theodore R. Sana, Sylvia Lo, Janet Wagner, Gina Edwards, Teresa Clifford, Satish Menon, J. Fernando Bazan, and Robert A. Kastelein

1447 Both TCRα and TCRδ Chain Diversity Are Regulated During Thymic Ontogeny
Maighréad Gallagher, Patricia Obeïd, Patrice N. Marche, and Evelyne Jouvin-Marche

1454 Genomic Structure and Transcriptional Regulation of the Early B Cell Gene *chB1*
Ryo Goitsuka, Hiroshi Mamada, Daisuke Kitamura, Max D. Cooper, and Chen-lo H. Chen

1461 Dendritic Cells from Nonobese Diabetic Mice Exhibit a Defect in NF-κB Regulation Due to a Hyperactive IκB Kinase
Donald J. Weaver, Jr., Brian Poligone, Thi Bui, Ussama M. Abdel-Motal, Albert S. Baldwin, Jr., and Roland Tisch

1469 The Inhibitory Effect of IL-1β on IL-6-Induced α_2-Macroglobulin Expression Is Due to Activation of NF-κB
Johannes G. Bode, Richard Fischer, Dieter Häussinger, Lutz Graeve, Peter C. Heinrich, and Fred Schaper

1482 Human IFN-α Protein Engineering: The Amino Acid Residues at Positions 86 and 90 Are Important for Antiproliferative Activity
Renqiu Hu, Joseph Bekisz, Hana Schmeisser, Peter McPhie, and Kathryn Zoon

1490 Kinetic Analysis of the Interactions of Complement Receptor 2 (CR2, CD21) with Its Ligands C3d, iC3b, and the EBV Glycoprotein gp350/220
Maria Rosa Sarrias, Silvia Franchini, Gabriela Canziani, Emelia Argyropoulos, William T. Moore, Arvind Sahu, and John D. Lambris

1500 C1 Inhibitor: Analysis of the Role of Amino Acid Residues Within the Reactive Center Loop in Target Protease Recognition
Rana Zahedi, Ryan C. MacFarlane, Jeffrey J. Wisnieski, and Alvin E. Davis III

1507 Functional Roles of TAP and Tapasin in the Assembly of M3-*N*-Formylated Peptide Complexes
Taehoon Chun, Andreas G. Grandea III, Lonnie Lybarger, James Forman, Luc Van Kaer, and Chyung-Ru Wang

1515 The Murine Cytomegalovirus pp89 Immunodominant $H\text{-}2L^d$ Epitope Is Generated and Translocated into the Endoplasmic Reticulum as an 11-Mer Precursor Peptide
Christine Knuehl, Pieter Spee, Thomas Ruppert, Ulrike Kuckelkorn, Peter Henklein, Jacques Neefjes, and Peter-M. Kloetzel

1522 Differential Regulation of Mouse Germline Ig γ1 and ε Promoters by IL-4 and CD40
Chun-sheng Mao and Janet Stavnezer

HOST DEFENSE

1535 Blocking the Receptor for IL-10 Improves Antimycobacterial Chemotherapy and Vaccination
Regina A. Silva, Teresa F. Pais, and Rui Appelberg

1542 *Mycobacterium tuberculosis* 19-kDa Lipoprotein Promotes Neutrophil Activation
Clemens Neufert, Rish K. Pai, Erika H. Noss, Melvin Berger, W. Henry Boom, and Clifford V. Harding

1550 Complement Is Essential for Protection by an IgM and an IgG3 Monoclonal Antibody Against Experimental, Hematogenously Disseminated Candidiasis
Yongmoon Han, Thomas R. Kozel, Mason X. Zhang, Randall S. MacGill, Michael C. Carroll, and Jim E. Cutler

1558 DNA Fusion Vaccine Designed to Induce Cytotoxic T Cell Responses Against Defined Peptide Motifs: Implications for Cancer Vaccines
Jason Rice, Tim Elliott, Sarah Buchan, and Freda K. Stevenson

1566 Virally Infected Hepatocytes Are Resistant to Perforin-Dependent CTL Effector Mechanisms
Michel I. Kafrouni, Geri R. Brown, and Dwain L. Thiele

1575 Impaired T Cell Immunity in B Cell-Deficient Mice Following Viral Central Nervous System Infection
Cornelia C. Bergmann, Chandran Ramakrishna, Margaret Kornacki, and Stephen A. Stohlman

1584 Immunostimulatory DNA-Based Vaccines Elicit Multifaceted Immune Responses Against HIV at Systemic and Mucosal Sites
Anthony A. Horner, Sandip K. Datta, Kenji Takabayashi, Igor M. Belyakov, Tomoko Hayashi, Nadya Cinman, Minh-Duc Nguyen, John H. Van Uden, Jay A. Berzofsky, Douglas D. Richman, and Eyal Raz

1592 Targeted Mutation of TNF Receptor I Rescues the RelA-Deficient Mouse and Reveals a Critical Role for NF-κB in Leukocyte Recruitment
Elizabeth Alcamo, Joseph P. Mizgerd, Bruce H. Horwitz, Rod Bronson, Amer A. Beg, Martin Scott, Claire M. Doerschuk, Richard O. Hynes, and David Baltimore

INFLAMMATION

1601 Essential Role of Neutrophils in the Initiation and Progression of a Murine Model of Rheumatoid Arthritis
Brian T. Wipke and Paul M. Allen

1609 Decreased Expression of Toll-Like Receptor-4 and MD-2 Correlates with Intestinal Epithelial Cell Protection Against Dysregulated Proinflammatory Gene Expression in Response to Bacterial Lipopolysaccharide
Maria T. Abreu, Puja Vora, Emmanuelle Faure, Lisa S. Thomas, Elizabeth T. Arnold, and Moshe Arditi

1617 The Cytoplasmic Domain of L-Selectin Participates in Regulating L-Selectin Endoproteolysis
Erik Matala, Shelia R. Alexander, Takashi K. Kishimoto, and Bruce Walcheck

1624 The Essential Role of Lipopolysaccharide-Binding Protein in Protection of Mice Against a Peritoneal *Salmonella* Infection Involves the Rapid Induction of an Inflammatory Response
Jan-Michael Heinrich, Martin Bernheiden, Gabriela Minigo, Kang Kang Yang, Christine Schütt, Daniela N. Männel, and Robert S. Jack

1629 Elevated Levels of Cyclooxygenase-2 in Antigen-Stimulated Mast Cells Is Associated with Minimal Activation of p38 Mitogen-Activated Protein Kinase
Thomas R. Hundley, Anjana R. Prasad, and Michael A. Beaven

1637 RANTES-Induced Chemokine Cascade in Dendritic Cells
Falko R. Fischer, Yi Luo, Moli Luo, Laura Santambrogio, and Martin E. Dorf

1644 Evidence of IL-18 as a Novel Angiogenic Mediator
Christy C. Park, Jacques C. M. Morel, M. Asif Amin, Matthew A. Connors, Lisa A. Harlow, and Alisa E. Koch

1654 CCAAT-Enhancer-Binding Protein β (C/EBPβ) Activates CCR5 Promoter: Increased C/EBPβ and CCR5 in T Lymphocytes from HIV-1-Infected Individuals
Margherita Rosati, Antonio Valentin, Daniel J. Patenaude, and George N. Pavlakis

1663 Inhibition of H_2 Histamine Receptor-Mediated Cation Channel Opening by Protein Kinase C in Human Promyelocytic Cells
Byung-Chang Suh, Hyun Lee, Dong-Jae Jun, Jang-Soo Chun, Jong-Hee Lee, and Kyong-Tai Kim

1672 Extensive Eosinophil Degranulation and Peroxidase-Mediated Oxidation of Airway Proteins Do Not Occur in a Mouse Ovalbumin-Challenge Model of Pulmonary Inflammation
Karen L. Denzler, Michael T. Borchers, Jeffrey R. Crosby, Grzegorz Cieslewicz, Edith M. Hines, J. Paul Justice, Stephania A. Cormier, Kari A. Lindenberger, Wei Song, Weijia Wu, Stanley L. Hazen, Gerald J. Gleich, James J. Lee, and Nancy A. Lee

1683 IL-13 Induces Airways Hyperreactivity Independently of the IL-4Rα Chain in the Allergic Lung
Joerg Mattes, Ming Yang, Ana Siqueira, Kris Clark, Jason MacKenzie, Andrew N. J. McKenzie, Dianne C. Webb, Klaus I. Matthaei, and Paul S. Foster

CLINICAL IMMUNOLOGY

1693 Increased Entry into the IFN-γ Effector Pathway by $CD4^+$ T Cells Selected by $I\text{-}A^{g7}$ on a Nonobese Diabetic Versus C57BL/6 Genetic Background
Syuichi Koarada, Yuehong Wu, and William M. Ridgway

1703 Administration of Pentoxifylline During Allergen Sensitization Dissociates Pulmonary Allergic Inflammation from Airway Hyperresponsiveness
Carolyn M. Fleming, Hongzhen He, Alex Ciota, David Perkins, and Patricia W. Finn

1712 The Generation of Both T Killer and Th Cell Clones Specific for the Tumor-Associated Antigen HER2 Using Retrovirally Transduced Dendritic Cells
Christian Meyer zum Büschenfelde, Jochen Metzger, Christine Hermann, Nicole Nicklisch, Christian Peschel, and Helga Bernhard

1720 Induction of Experimental Autoimmune Thyroiditis in IL-12$^{-/-}$ Mice
Kemin Chen, Yongzhong Wei, Gordon C. Sharp, and Helen Braley-Mullen

1728 Autoantigen Glycoprotein 70 Expression Is Regulated by a Single Locus, Which Acts as a Checkpoint for Pathogenic Anti-Glycoprotein 70 Autoantibody Production and Hence for the Corresponding Development of Severe Nephritis, in Lupus-Prone BXSB Mice
Michelle E. K. Haywood, Timothy J. Vyse, Aileen McDermott, E. Mary Thompson, Akinori Ida, Mark J. Walport, Shozo Izui, and Bernard J. Morley

1734 Allergen-Derived T Cell Peptide-Induced Late Asthmatic Reactions Precede the Induction of Antigen-Specific Hyporesponsiveness in Atopic Allergic Asthmatic Subjects
William L. G. Oldfield, A. Barry Kay, and Mark Larché

1740 Apoptosis and Altered Dendritic Cell Homeostasis in Lupus Nephritis Are Limited by Anti-CD154 Treatment
Susan L. Kalled, Anne H. Cutler, and Linda C. Burkly

1748 MHC Class I-Restricted Determinants on the Glutamic Acid Decarboxylase 65 Molecule Induce Spontaneous CTL Activity
Anthony Quinn, Marcia F. McInerney, and Eli E. Sercarz

1758 Dendritic Cells (DCs) in Rheumatoid Arthritis (RA): Progenitor Cells and Soluble Factors Contained in RA Synovial Fluid Yield a Subset of Myeloid DCs That Preferentially Activate Th1 Inflammatory-Type Responses
Frances Santiago-Schwarz, Prachi Anand, Sean Liu, and Steven E. Carsons

1769 IL-13 and IFN-γ: Interactions in Lung Inflammation
Jean G. Ford, Donna Rennick, Debra D. Donaldson, Rajeev Venkayya, Cliff McArthur, Elisabeth Hansell, Viswanath P. Kurup, Martha Warnock, and Gabriele Grünig

1778 Adenoviral Augmentation of Elafin Protects the Lung Against Acute Injury Mediated by Activated Neutrophils and Bacterial Infection
A. John Simpson, William A. H. Wallace, Mark E. Marsden, John R. W. Govan, David J. Porteous, Chris Haslett, and Jean-Michel Sallenave

1787 Mutation in the Class II *trans*-Activator Leading to a Mild Immunodeficiency
Wojciech Wiszniewski, Marie-Claude Fondaneche, Françoise Le Deist, Maria Kanariou, Françoise Selz, Nicole Brousse, Viktor Steimle, Giovanna Barbieri, Catherine Alcaide-Loridan, Dominique Charron, Alain Fischer, and Barbara Lisowska-Grospierre

1795 Cross-Presentation by Dendritic Cells of Tumor Antigen Expressed in Apoptotic Recombinant Canarypox Virus-Infected Dendritic Cells
Iris Motta, Fabrice André, Annick Lim, James Tartaglia, William I. Cox, Laurence Zitvogel, Eric Angevin, and Philippe Kourilsky

1803 A *Chlamydia pneumoniae*-Specific Peptide Induces Experimental Autoimmune Encephalomyelitis in Rats
Derek C. Lenz, Lin Lu, Stephanie B. Conant, Norbert A. Wolf, Hervé C. Gérard, Judith A. Whittum-Hudson, Alan P. Hudson, and Robert H. Swanborg

1809 Short-Term Kinetics of Tumor Antigen Expression in Response to Vaccination
Galen A. Ohnmacht, Ena Wang, Simone Mocellin, Andrea Abati, Armando Filie, Patricia Fetsch, Adam I. Riker, Udai S. Kammula, Steven A. Rosenberg, and Francesco M. Marincola

1821 Intrathecal Delivery of IFN-γ Protects C57BL/6 Mice from Chronic-Progressive Experimental Autoimmune Encephalomyelitis by Increasing Apoptosis of Central Nervous System-Infiltrating Lymphocytes
Roberto Furlan, Elena Brambilla, Francesca Ruffini, Pietro L. Poliani, Alessandra Bergami, Peggy C. Marconi, Diego M. Franciotta, Giuseppe Penna, Giancarlo Comi, Luciano Adorini, and Gianvito Martino

1830 B7 Interactions with CD28 and CTLA-4 Control Tolerance or Induction of Mucosal Inflammation in Chronic Experimental Colitis
Zhanju Liu, Karel Geboes, Peter Hellings, Philippe Maerten, Hubertine Heremans, Peter Vandenberghe, Louis Boon, Peter van Kooten, Paul Rutgeerts, and Jan L. Ceuppens

1839 Correction

1840 Author Index

1843 AAI Membership Application

1844 AAI Trainee Membership Application

VOLUME 167 / Nº 4 / AUGUST 15, 2001

EDITORIAL

1853 The State of *The Journal of Immunology*—2001

IN MEMORIUM

1855 *Alfred Nisonoff 1923–2001*

CUTTING EDGE

1857 Cutting Edge: T Cell Migration Regulated by CXCR4 Chemokine Receptor Signaling to ZAP-70 Tyrosine Kinase
Nadine C. Ottoson, Jonathan T. Pribila, Anissa S. H. Chan, and Yoji Shimizu

1862 Cutting Edge: Selective Usage of Chemokine Receptors by Plasmacytoid Dendritic Cells
Giuseppe Penna, Silvano Sozzani, and Luciano Adorini

1867 Cutting Edge: Predominant Expression of a Novel Ikaros Isoform in Normal Human Hemopoiesis
Kimberly J. Payne, Jan-Holly Nicolas, Judy Y. Zhu, Lora W. Barsky, and Gay M. Crooks

1871 Cutting Edge: The Nucleotide Receptor $P2X_7$ Contains Multiple Protein- and Lipid-Interaction Motifs Including a Potential Binding Site for Bacterial Lipopolysaccharide
Loren C. Denlinger, Philip L. Fisette, Julie A. Sommer, Jyoti J. Watters, Usha Prabhu, George R. Dubyak, Richard A. Proctor, and Paul J. Bertics

1877 Cutting Edge: Induction of IFN-γ Production, but Not Cytotoxicity, by the Killer Cell Ig-Like Receptor KIR2DL*A* (CD158d) in Resting NK Cells
Sumati Rajagopalan, Jacqueline Fu, and Eric O. Long

1882 Cutting Edge: Bacterial Flagellin Activates Basolaterally Expressed TLR5 to Induce Epithelial Proinflammatory Gene Expression
Andrew T. Gewirtz, Tony A. Navas, Sean Lyons, Paul J. Godowski, and James L. Madara

1886 Cutting Edge: Expansion and Activation of a Population of Autoreactive Marginal Zone B Cells in a Model of Estrogen-Induced Lupus
Christine M. Grimaldi, Daniel J. Michael, and Betty Diamond

CELLULAR IMMUNOLOGY AND IMMUNE REGULATION

1891 Role of $CD4^+$ and $CD8^+$ T Cells in Allorecognition: Lessons from Corneal Transplantation
Florence Boisgérault, Ying Liu, Natalie Anosova, Elana Ehrlich, M. Reza Dana, and Gilles Benichou

1900 Human Cytomegalovirus Circumvents NF-κB Dependence in Retinal Pigment Epithelial Cells
Jindrich Cinatl, Jr., Stefan Margraf, Jens-Uwe Vogel, Martin Scholz, Jaroslav Cinatl, and Hans Wilhelm Doerr

1909 Essential Role of RelB in Germinal Center and Marginal Zone Formation and Proper Expression of Homing Chemokines
Debra S. Weih, Z. Buket Yilmaz, and Falk Weih

1920 Signaling Through TNF Receptor p55 in TNF-α-Deficient Mice Alters the CXCL13:CCL19:CCL21 Ratio in the Spleen and Induces Maturation and Migration of Anergic B Cells into the B Cell Follicle
Laura Mandik-Nayak, Guangming Huang, Kathleen C. F. Sheehan, Jan Erikson, and David D. Chaplin

1929 Differential Roles of Cytokine Receptors in the Development of Epidermal γδ T Cells
Sang-Kyu Ye, Kazushige Maki, Hai-Chon Lee, Akiko Ito, Kazuhiro Kawai, Haruhiko Suzuki, Tak W. Mak, Yueh-hsiu Chien, Tasuku Honjo, and Koichi Ikuta

1935 Somatic Hypermutation and Selection of B Cells in Thymic Germinal Centers Responding to Acetylcholine Receptor in Myasthenia Gravis
Gary P. Sims, Hiroyuki Shiono, Nick Willcox, and David I. Stott

1945 Regulatory T Cells Induced by 1α,25-Dihydroxyvitamin D_3 and Mycophenolate Mofetil Treatment Mediate Transplantation Tolerance
Silvia Gregori, Mara Casorati, Susana Amuchastegui, Simona Smiroldo, Alberto M. Davalli, and Luciano Adorini

1954 Development of the Thymus Requires Signaling Through the Fibroblast Growth Factor Receptor R2-IIIb
Jean-Michel Revest, Ravinder K. Suniara, Karen Kerr, John J. T. Owen, and Clive Dickson

1962 Impairment in the Expression and Activity of Fyn During Differentiation of Naive $CD4^+$ T Cells into the Th2 Subset
Toshiki Tamura, Osamu Igarashi, Ayako Hino, Hidehiro Yamane, Shinichi Aizawa, Takuma Kato, and Hideo Nariuchi

1970 Human Recent Thymic Emigrants–Identification, Expansion, and Survival Characteristics
Jaythoon Hassan and Denis J. Reen

1977 Impairment of Bleomycin-Induced Lung Fibrosis in CD28-Deficient Mice
Tatsuma Okazaki, Atsuhito Nakao, Hiroyasu Nakano, Fumiyuki Takahashi, Kazuhisa Takahashi, Osamu Shimozato, Kazuyoshi Takeda, Hideo Yagita, and Ko Okumura

1982 $CD8^-$ Dendritic Cell Activation Status Plays an Integral Role in Influencing Th2 Response Development
Andrew S. MacDonald, Amy D. Straw, Beverley Bauman, and Edward J. Pearce

1989 Signaling Lymphocytic Activation Molecule Is Expressed on Mature $CD83^+$ Dendritic Cells and Is Up-Regulated by IL-1β
Monika Kruse, Edgar Meinl, Golo Henning, Christine Kuhnt, Susanne Berchtold, Thomas Berger, Gerold Schuler, and Alexander Steinkasserer

1996 Inducible Costimulator Regulates Th2-Mediated Inflammation, but Not Th2 Differentiation, in a Model of Allergic Airway Disease
Amanda G. Tesciuba, Sumit Subudhi, Russell P. Rother, Susan J. Faas, Aric M. Frantz, David Elliot, Joel Weinstock, Louis A. Matis, Jeffrey A. Bluestone, and Anne I. Sperling

2004 The Source of Early IFN-γ That Plays a Role in Th1 Priming
Gobardhan Das, Scott Sheridan, and Charles A. Janeway, Jr.

2011 IFN-γ-Dependent and -Independent Initiation of Switch Recombination by NK Cells
Ning Gao, Tam Dang, and Dorothy Yuan

2019 EBV-Specific $CD8^+$ T Cell Memory: Relationships Between Epitope Specificity, Cell Phenotype, and Immediate Effector Function
Andrew D. Hislop, Nancy H. Gudgeon, Margaret F. C. Callan, Chrysoula Fazou, Hitoshi Hasegawa, Michael Salmon, and Alan B. Rickinson

2030 Adaptive Tolerance of $CD4^+$ T Cells In Vivo: Multiple Thresholds in Response to a Constant Level of Antigen Presentation
Corinne Tanchot, Daniel L. Barber, Lynda Chiodetti, and Ronald H. Schwartz

2040 Signaling Alterations in Activation-Induced Nonresponsive CD8 T Cells
Ee Loon Tham and Matthew F. Mescher

2049 Nicotinamide Adenine Dinucleotide (NAD) and Its Metabolites Inhibit T Lymphocyte Proliferation: Role of Cell Surface NAD Glycohydrolase and Pyrophosphatase Activities
Rita Bortell, Joel Moss, Robert C. McKenna, Mark R. Rigby, Dena Niedzwiecki, Linda A. Stevens, Walter A. Patton, John P. Mordes, Dale L. Greiner, and Aldo A. Rossini

2060 Testosterone Acts Directly on $CD4^+$ T Lymphocytes to Increase IL-10 Production
Stephanie M. Liva and Rhonda R. Voskuhl

2068 A Central Role for Death Receptor-Mediated Apoptosis in the Rejection of Tumors by NK Cells
Valentina Screpanti, Robert P. A. Wallin, Hans-Gustaf Ljunggren, and Alf Grandien

2074 Adenosine 3′,5′-Cyclic Monophosphate (cAMP)-Dependent Inhibition of IL-5 from Human T Lymphocytes Is Not Mediated by the cAMP-Dependent Protein Kinase A
Karl J. Staples, Martin Bergmann, Katsuyuki Tomita, Miles D. Houslay, Ian McPhee, Peter J. Barnes, Mark A. Giembycz, and Robert Newton

2081 IL-17 Mobilizes Peripheral Blood Stem Cells with Short- and Long-Term Repopulating Ability in Mice
Paul Schwarzenberger, Weitao Huang, Peter Oliver, Patrick Byrne, Vincent La Russa, Zili Zhang, and Jay K. Kolls

2087 Predominance of $NK1.1^+TCR\alpha\beta^+$ or $DX5^+TCR\alpha\beta^+$ T Cells in Mice Conditioned with Fractionated Lymphoid Irradiation Protects Against Graft-Versus-Host Disease: "Natural Suppressor" Cells
Fengshuo Lan, Defu Zeng, Masanori Higuchi, Philip Huie, John P. Higgins, and Samuel Strober

2097 Tapasin Enhances Peptide-Induced Expression of H2-M3 Molecules, but Is Not Required for the Retention of Open Conformers
Lonnie Lybarger, Yik Yeung L. Yu, Taehoon Chun, Chyung-Ru Wang, Andres G. Grandea III, Luc Van Kaer, and Ted H. Hansen

MOLECULAR AND STRUCTURAL IMMUNOLOGY

2106 A Point Mutation in the *IL-12Rβ2* Gene Underlies the IL-12 Unresponsiveness of *Lps*-Defective C57BL/10ScCr Mice
Alexander Poltorak, Thomas Merlin, Peter J. Nielsen, Olivier Sandra, Irina Smirnova, Ingo Schupp, Thomas Boehm, Chris Galanos, and Marina A. Freudenberg

2112 Isolation and Characterization of a Novel IgD-Binding Protein from *Moraxella catarrhalis*
Arne Forsgren, Marta Brant, Andrea Möllenkvist, Anthony Muyombwe, Håkan Janson, Nicolas Woin, and Kristian Riesbeck

2121 Distinct Control of the Frequency and Allelic Exclusion of the Vβ Gene Rearrangement at the TCRβ Locus
Ping Sieh and Jianzhu Chen

2130 Combinatorial Peptide Libraries and Biometric Score Matrices Permit the Quantitative Analysis of Specific and Degenerate Interactions Between Clonotypic TCR and MHC Peptide Ligands
Yingdong Zhao, Bruno Gran, Clemencia Pinilla, Silva Markovic-Plese, Bernhard Hemmer, Abraham Tzou, Laurie Ward Whitney, William E. Biddison, Roland Martin, and Richard Simon

2142 SCID in Jack Russell Terriers: A New Animal Model of DNA-PKcs Deficiency
Katheryn Meek, Laura Kienker, Clarissa Dallas, Wei Wang, Michael J. Dark, Patrick J. Venta, Maryann L. Huie, Rochelle Hirschhorn, and Tom Bell

2151 Circulating Human B Cells That Express Surrogate Light Chains Display a Unique Antibody Repertoire
Eric Meffre, Michael Chiorazzi, and Michel C. Nussenzweig

2157 E2A and HEB Activate the Pre-TCRα Promoter During Immature T Cell Development
Arata Takeuchi, Sho Yamasaki, Kan Takase, Fubito Nakatsu, Hisashi Arase, Makoto Onodera, and Takashi Saito

2164 Characterization of the Active Sites in Decay-Accelerating Factor
Lisa A. Kuttner-Kondo, Lynne Mitchell, Dennis E. Hourcade, and M. Edward Medof

2172 Human Cathepsin W, a Cysteine Protease Predominantly Expressed in NK Cells, Is Mainly Localized in the Endoplasmic Reticulum
Thomas Wex, Frank Bühling, Heike Wex, Dagmar Günther, Peter Malfertheiner, Ekkehard Weber, and Dieter Brömme

2179 Mutation of a Single Conserved Residue in V_H Complementarity-Determining Region 2 Results in a Severe Ig Secretion Defect
Gregory D. Wiens, Annemarie Lekkerkerker, Imke Veltman, and Marvin B. Rittenberg

HOST DEFENSE

2187 Mycobacterial Lysocardiolipin Is Exported from Phagosomes upon Cleavage of Cardiolipin by a Macrophage-Derived Lysosomal Phospholipase A_2
Karsten Fischer, Delphi Chatterjee, Jordi Torrelles, Patrick J. Brennan, Stefan H. E. Kaufmann, and Ulrich E. Schaible

2193 *Toxoplasma gondii* Tachyzoites Inhibit Proinflammatory Cytokine Induction in Infected Macrophages by Preventing Nuclear Translocation of the Transcription Factor NF-κB
Barbara A. Butcher, Leesun Kim, Peter F. Johnson, and Eric Y. Denkers

2202 Expression of TNF-α by Herpes Simplex Virus-Infected Macrophages Is Regulated by a Dual Mechanism: Transcriptional Regulation by NF-κB and Activating Transcription Factor 2/Jun and Translational Regulation Through the AU-Rich Region of the 3′ Untranslated Region
Søren R. Paludan, Svend Ellermann-Eriksen, Veronique Kruys, and Søren C. Mogensen

2209 Dynamic Antigen Presentation Patterns of *Listeria monocytogenes*-Derived CD8 T Cell Epitopes In Vivo
Mojca Škoberne, Rafaela Holtappels, Herbert Hof, and Gernot Geginat

2219 $V\beta6^+$ T Cells Are Obligatory for Vaccine-Induced Immunity to *Histoplasma capsulatum*
George S. Deepe, Jr. and Reta Gibbons

2227 Functional Transitions in Macrophages During In Vivo Infection with *Mycobacterium bovis* Bacillus Calmette-Guérin
Jessica A. Hamerman and Alan Aderem

2234 The Role of IL-4 in *Heligmosomoides polygyrus*-Induced Alterations in Murine Intestinal Epithelial Cell Function
Terez Shea-Donohue, Carolyn Sullivan, Fred D. Finkelman, Kathleen B. Madden, Suzanne C. Morris, Jon Goldhill, Victor Piñeiro-Carrero, and Joseph F. Urban, Jr.

2240 Targeting of *Pseudomonas aeruginosa* in the Bloodstream with Bispecific Monoclonal Antibodies
Margaret A. Lindorfer, Alessandra Nardin, Patricia L. Foley, Michael D. Solga, Alexander J. Bankovich, Edward N. Martin, Andrea L. Henderson, Carol W. Price, Edit Gyimesi, Colin P. Wozencraft, Joanna B. Goldberg, William M. Sutherland, and Ronald P. Taylor

2250 Protective Roles of Mast Cells Against Enterobacterial Infection Are Mediated by Toll-Like Receptor 4
Volaluck Supajatura, Hiroko Ushio, Atsuhito Nakao, Ko Okumura, Chisei Ra, and Hideoki Ogawa

2257 Induction of Tolerance to Lipopolysaccharide and Mycobacterial Components in Chinese Hamster Ovary/CD14 Cells Is Not Affected by Overexpression of Toll-Like Receptors 2 or 4
Andrei E. Medvedev, Philipp Henneke, Andra Schromm, Egil Lien, Robin Ingalls, Matthew J. Fenton, Douglas T. Golenbock, and Stefanie N. Vogel

INFLAMMATION

2268 Differential Requirements for Core2 Glucosaminyltransferase for Endothelial L-Selectin Ligand Function In Vivo
Markus Sperandio, S. Bradley Forlow, Jayant Thatte, Lesley G. Ellies, Jamey D. Marth, and Klaus Ley

2275 Taurine Chloramine Inhibits Inducible Nitric Oxide Synthase and TNF-α Gene Expression in Activated Alveolar Macrophages: Decreased NF-κB Activation and IκB Kinase Activity
Madhabi Barua, Yong Liu, and Michael R. Quinn

2282 Differences in Functional Consequences and Signal Transduction Induced by IL-3, IL-5, and Nerve Growth Factor in Human Basophils
Katsushi Miura, Sarbjit S. Saini, Gail Gauvreau, and Donald W. MacGlashan, Jr.

2292 Eosinophil Tissue Recruitment to Sites of Allergic Inflammation in the Lung Is Platelet Endothelial Cell Adhesion Molecule Independent
Marina Miller, K.-L. Paul Sung, William A. Muller, Jae Youn Cho, Mark Roman, Diego Castaneda, Jyothi Nayar, Thomas Condon, John Kim, P. Sriramarao, and David H. Broide

2298 Sensitized Mast Cells Migrate Toward the Antigen: A Response Regulated by p38 Mitogen-Activated Protein Kinase and Rho-Associated Coiled-Coil-Forming Protein Kinase
Tamotsu Ishizuka, Fumikazu Okajima, Mitsuteru Ishiwara, Kunihiko Iizuka, Isao Ichimonji, Tadayoshi Kawata, Hideo Tsukagoshi, Kunio Dobashi, Tsugio Nakazawa, and Masatomo Mori

2305 C5b-9 Terminal Complement Complex Protects Oligodendrocytes from Death by Regulating Bad Through Phosphatidylinositol 3-Kinase/Akt Pathway
Lucian Soane, Hyun-Jun Cho, Florin Niculescu, Horea Rus, and Moon L. Shin

2312 Up-Regulation of IL-10R1 Expression Is Required to Render Human Neutrophils Fully Responsive to IL-10
Luca Crepaldi, Sara Gasperini, José A. Lapinet, Federica Calzetti, Cristina Pinardi, Ying Liu, Sandra Zurawski, René de Waal Malefyt, Kevin W. Moore, and Marco A. Cassatella

2323 Real-Time Imaging of Vascular Endothelial-Cadherin During Leukocyte Transmigration Across Endothelium
Sunil K. Shaw, Paul S. Bamba, Brandy N. Perkins, and Francis W. Luscinskas

2331 Regulation of Class II Expression in Monocytic Cells after HIV-1 Infection
Seth Rakoff-Nahoum, Houchu Chen, Thomas Kraus, Italas George, Erwin Oei, Max Tyorkin, Erez Salik, Prarthana Beuria, and Kirk Sperber

2343 Catalytic Subunit of Protein Kinase A Is an Interacting Partner of the Inflammation-Responsive Transcription Factor Serum Amyloid A-Activating Factor-1
Bimal K. Ray, Jing Chen, and Alpana Ray

2349 A Critical Role for Mouse CXC Chemokine(s) in Pulmonary Neutrophilia During Th Type 1-Dependent Airway Inflammation
Akiko Takaoka, Yoshitaka Tanaka, Takemasa Tsuji, Takafumi Jinushi, Akihiko Hoshino, Yumiko Asakura, Yasuo Mita, Kazuhito Watanabe, Shiro Nakaike, Yuji Togashi, Toshiaki Koda, Kouji Matsushima, and Takashi Nishimura

CLINICAL IMMUNOLOGY

2354 The Role of $\alpha\beta^+$ T Cells and Homeostatic T Cell Proliferation in Y-Chromosome-Associated Murine Lupus
Brian R. Lawson, Stefanos I. Koundouris, Marlene Barnhouse, Wolfgang Dummer, Roberto Baccala, Dwight H. Kono, and Argyrios N. Theofilopoulos

2361 Increased Frequency of Pregerminal Center B Cells and Plasma Cell Precursors in the Blood of Children with Systemic Lupus Erythematosus
Edsel Arce, Deborah G. Jackson, Michelle A. Gill, Lynda B. Bennett, Jacques Banchereau, and Virginia Pascual

2370 Fas/Fas Ligand Deficiency Results in Altered Localization of Anti-Double-Stranded DNA B Cells and Dendritic Cells
Michele L. Fields, Caroline L. Sokol, Ashlyn Eaton-Bassiri, Su-jean Seo, Michael P. Madaio, and Jan Erikson

2379 Adoptive Immunotherapy of Experimental Autoimmune Encephalomyelitis Via T Cell Delivery of the IL-12 p40 Subunit
Gina L. Costa, Matthew R. Sandora, Atsuo Nakajima, Eddy V. Nguyen, Cariel Taylor-Edwards, Anthony J. Slavin, Christopher H. Contag, C. Garrison Fathman, and Jacqueline M. Benson

2388 Glomerulonephritis Induced by Recombinant Collagen IVα3 Chain Noncollagen Domain 1 Is Not Associated with Glomerular Basement Membrane Antibody: A Potential T Cell-Mediated Mechanism
Jean Wu, John Hicks, Ching-nan Ou, David Singleton, Jason Borillo, and Ya-Huan Lou

2396 Resistance to Xenobiotic-Induced Autoimmunity Maps to Chromosome 1
Dwight H. Kono, Miyo S. Park, Agnieszka Szydlik, Katarina M. Haraldsson, Jason D. Kuan, Deborah L. Pearson, Per Hultman, and K. Michael Pollard

2404 Inhibition of Autoimmune Diabetes in Nonobese Diabetic Mice by Transgenic Restoration of H2-E MHC Class II Expression: Additive, but Unequal, Involvement of Multiple APC Subtypes
Ellis A. Johnson, Pablo Silveira, Harold D. Chapman, Edward H. Leiter, and David V. Serreze

2411 Down-Regulation of IgE and IgG4 Antibodies to Tetanus Toxoid and Diphtheria Toxoid by Covaccination with Cellular *Bordetella pertussis* Vaccine
Christoph Grüber, Susanne Lau, Almut Dannemann, Christine Sommerfeld, Ulrich Wahn, and Rob C. Aalberse

2419 Author Index

2423 AAI Membership Application

2424 AAI Trainee Membership Application

VOLUME 167 / Nº 5 / SEPTEMBER 1, 2001

CUTTING EDGE

2437 Cutting Edge: Culture with High Doses of Viral Peptide Induces Previously Unprimed $CD8^+$ T Cells to Produce Cytokine
Janice M. Riberdy, Amy Zirkel, Sherri Surman, Julia L. Hurwitz, and Peter C. Doherty

2441 Cutting Edge: Dichotomy of Homing Receptor Dependence by Mucosal Effector B Cells: α_E Versus L-Selectin
Keri L. Csencsits, Nancy Walters, and David W. Pascual

2446 Cutting Edge: Myeloid Complement C3 Enhances the Humoral Response to Peripheral Viral Infection
Admar Verschoor, Mark A. Brockman, David M. Knipe, and Michael C. Carroll

2452 Cutting Edge: Amelioration of Kidney Disease in a Transgenic Mouse Model of Lupus Nephritis by Administration of the Caspase Inhibitor Carbobenzoxy-Valyl-Alanyl-Aspartyl-(β-*o-methyl*)-Fluoromethylketone
John P. Seery, Victoria Cattell, and Fiona M. Watt

TECHNICAL NOTE

2457 Technical Note: Linkage Disequilibrium and Disease-Associated CTLA4 Gene Polymorphisms
Päivi M. Holopainen and Jukka A. Partanen

CELLULAR IMMUNOLOGY AND IMMUNE REGULATION

2459 Role of CD47 in the Induction of Human Naive T Cell Anergy
Marie-Noëlle Avice, Manuel Rubio, Martin Sergerie, Guy Delespesse, and Marika Sarfati

2469 A CD19-Dependent Signaling Pathway Regulates Autoimmunity in Lyn-Deficient Mice
Minoru Hasegawa, Manabu Fujimoto, Jonathan C. Poe, Douglas A. Steeber, Clifford A. Lowell, and Thomas F. Tedder

2479 The TNF Superfamily Members LIGHT and CD154 (CD40 Ligand) Costimulate Induction of Dendritic Cell Maturation and Elicit Specific CTL Activity
Yannis Morel, Alemseged Truneh, Raymond W. Sweet, Daniel Olive, and Régis T. Costello

2487 IFN-γ Induces the Apoptosis of WEHI 279 and Normal Pre-B Cell Lines by Expressing Direct Inhibitor of Apoptosis Protein Binding Protein with Low pI
Hideshi Yoshikawa, Yasuo Nakajima, and Kachio Tasaka

2496 Double-Stranded RNA Regulates IL-4 Expression
Kelly E. Kehoe, Melissa A. Brown, and Farhad Imani

2502 Suppression of Granulocyte-Macrophage Colony-Stimulating Factor Expression by Glucocorticoids Involves Inhibition of Enhancer Function by the Glucocorticoid Receptor Binding to Composite NF-AT/Activator Protein-1 Elements
Philip J. Smith, David J. Cousins, Young-Koo Jee, Dontcho Z. Staynov, Tak H. Lee, and Paul Lavender

2511 Expression of $\alpha_4\beta_7$ Integrin Defines a Distinct Pathway of Lymphoid Progenitors Committed to T Cells, Fetal Intestinal Lymphotoxin Producer, NK, and Dendritic Cells
Hisahiro Yoshida, Hiroshi Kawamoto, Sybil M. Santee, Hiroyuki Hashi, Kenya Honda, Satomi Nishikawa, Carl F. Ware, Yoshimoto Katsura, and Shin-Ichi Nishikawa

2522 Longevity of Antigen Presentation and Activation Status of APC Are Decisive Factors in the Balance Between CTL Immunity Versus Tolerance
Annemieke Th. den Boer, Linda Diehl, Geertje J. D. van Mierlo, Ellen I. H. van der Voort, Marieke F. Fransen, Paul Krimpenfort, Cornelis J. M. Melief, Rienk Offringa, and René E. M. Toes

2529 Exogenous Peptides Presented by Transporter Associated with Antigen Processing (TAP)-Deficient and TAP-Competent Cells: Intracellular Loading and Kinetics of Presentation
Thomas Luft, Mark Rizkalla, Tsin Yee Tai, Qiyuan Chen, Roderick I. MacFarlan, Ian D. Davis, Eugene Maraskovsky, and Jonathan Cebon

2538 Neutrophils Process Exogenous Bacteria Via an Alternate Class I MHC Processing Pathway for Presentation of Peptides to T Lymphocytes
Nicholas S. Potter and Clifford V. Harding

2547 Bidirectional Negative Regulation of Human T and Dendritic Cells by CD47 and Its Cognate Receptor Signal-Regulator Protein-α: Down-Regulation of IL-12 Responsiveness and Inhibition of Dendritic Cell Activation
Sylvain Latour, Hiroyuki Tanaka, Christian Demeure, Véronique Mateo, Manuel Rubio, Eric J. Brown, Charles Maliszewski, Frederik P. Lindberg, Anna Oldenborg, Axel Ullrich, Guy Delespesse, and Marika Sarfati

2555 Antigen-Specific Blockade of T Cells In Vivo Using Dimeric MHC Peptide
Sean M. O'Herrin, Jill E. Slansky, Q. Tang, Mary A. Markiewicz, Thomas F. Gajewski, Drew M. Pardoll, Jonathan P. Schneck, and Jeffrey A. Bluestone

2561 MHC Class I Allele Dosage Alters CD8 Expression by Intestinal Intraepithelial Lymphocytes
Bradley S. Podd, Caroline Åberg, Kimberly L. Kudla, Lataya Keene, Erin Tobias, and Victoria Camerini

2569 Immune Rejection of a Large Sarcoma Following Cyclophosphamide and IL-12 Treatment Requires Both NK and NK T Cells and Is Associated with the Induction of a Novel NK T Cell Population
Claudia Karnbach, Michael R. Daws, Eréne C. Niemi, and Mary C. Nakamura

2577 Peptide Requirement for CTL Activation Reflects the Sensitivity to CD3 Engagement: Correlation with CD8αβ Versus CD8αα Expression
Andrew G. Cawthon, Haiping Lu, and Martha A. Alexander-Miller

2585 Neonatal Immunity Develops in a Transgenic TCR Transfer Model and Reveals a Requirement for Elevated Cell Input to Achieve Organ-Specific Responses
Lequn Li, Kevin L. Legge, Booki Min, J. Jeremiah Bell, Randal Gregg, Jacque Caprio, and Habib Zaghouani

2595 Inhibition of Activated/Memory ($CD45RO^+$) T Cells by Oxidative Stress Associated with Block of NF-κB Activation
Karl-Johan Malmberg, Velmurugesan Arulampalam, Fumiko Ichihara, Max Petersson, Kazutake Seki, Tove Andersson, Rodica Lenkei, Giuseppe Masucci, Sven Pettersson, and Rolf Kiessling

2602 Genomic DNA Released by Dying Cells Induces the Maturation of APCs
Ken J. Ishii, Koichi Suzuki, Cevayir Coban, Fumihiko Takeshita, Yasushi Itoh, Hana Matoba, Leonard D. Kohn, and Dennis M. Klinman

2608 Regulation of IL-12 p40 Promoter Activity in Primary Human Monocytes: Roles of NF-κB, CCAAT/Enhancer-Binding Protein β, and PU.1 and Identification of a Novel Repressor Element (GA-12) That Responds to IL-4 and Prostaglandin E_2
Christoph Becker, Stefan Wirtz, Xiaojing Ma, Manfred Blessing, Peter R. Galle, and Markus F. Neurath

2619 The Recognition of HLA-B27 by Human $CD4^+$ T Lymphocytes
Louise H. Boyle, Jane C. Goodall, Stephen S. Opat, and J. S. Hill Gaston

2625 Connection Between B Lymphocyte and Osteoclast Differentiation Pathways
Noriyo Manabe, Hiroshi Kawaguchi, Hirotaka Chikuda, Chisato Miyaura, Masaki Inada, Ryozo Nagai, Yo-ichi Nabeshima, Kozo Nakamura, Angus M. Sinclair, Richard H. Scheuermann, and Makoto Kuro-o

2632 Efficient Presentation of Both Cytosolic and Endogenous Transmembrane Protein Antigens on MHC Class II Is Dependent on Cytoplasmic Proteolysis
Paushali Mukherjee, Aadish Dani, Sumeena Bhatia, Nagendra Singh, Alexander Y. Rudensky, Anna George, Vineeta Bal, Satyajit Mayor, and Satyajit Rath

2642 Cellular Localization and Functional Role of Phosphatidylcholine-Specific Phospholipase C in NK Cells
Carlo Ramoni, Francesca Spadaro, Michela Menegon, and Franca Podo

2651 Intestinal Macrophages Lack CD14 and CD89 and Consequently Are Down-Regulated for LPS- and IgA-Mediated Activities
Phillip D. Smith, Lesley E. Smythies, Meg Mosteller-Barnum, Don A. Sibley, Michael W. Russell, Michael Merger, Marty T. Sellers, Jan M. Orenstein, Toshihide Shimada, Martin F. Graham, and Hiromi Kubagawa

2657 Abnormal T Cell Receptor Signal Transduction of CD4 Th Cells in X-Linked Lymphoproliferative Syndrome
Hiroyuki Nakamura, Jodi Zarycki, John L. Sullivan, and Jae U. Jung

2666 Regulatory Potential of Fever-Range Whole Body Hyperthermia on Langerhans Cells and Lymphocytes in an Antigen-Dependent Cellular Immune Response
Julie R. Ostberg, Caren Gellin, Rahul Patel, and Elizabeth A. Repasky

2671 Progressive Depletion of Peripheral B Lymphocytes in 4-1BB (CD137) Ligand/I-E_α-Transgenic Mice
Gefeng Zhu, Dallas B. Flies, Koji Tamada, Yonglian Sun, Moses Rodriguez, Yang-Xin Fu, and Lieping Chen

Molecular and Structural Immunology

2677 Inhibition of NFATx Activation by an Oligopeptide: Disrupting the Interaction of NFATx with Calcineurin
Jie Liu, Ken-ichi Arai, and Naoko Arai

2688 Immunomodulation of Experimental Autoimmune Encephalomyelitis with Ordered Peptides Based on MHC-TCR Binding Motifs
Pedro J. Ruiz, Jason J. DeVoss, Louis-Vu T. Nguyen, Paulo P. Fontoura, David L. Hirschberg, Dennis J. Mitchell, K. Christopher Garcia, and Lawrence Steinman

2694 Identification, Cloning, and Recombinant Expression of Procalin, a Major Triatomine Allergen
Christopher D. Paddock, James H. McKerrow, Elizabeth Hansell, K. W. Foreman, Ivy Hsieh, and Neal Marshall

2700 Negative Regulation of the NFAT1 Factor by CD45: Implication in HIV-1 Long Terminal Repeat Activation
Benoit Barbeau, Gilles A. Robichaud, Jean-François Fortin, and Michel J. Tremblay

2714 Phosphatidylinositol 3-Kinase Potentiates, but Does Not Trigger, T Cell Proliferation Mediated by the IL-2 Receptor
James J. Moon and Brad H. Nelson

2724 Monomorphic Molecules Function as Additional Recognition Structures on Haptenated Target Cells for HLA-A1-Restricted, Hapten-Specific CTL
Johannes Stöckl, Otto Majdic, Gottfried Fischer, Dieter Maurer, and Walter Knapp

Host Defense

2734 $CD4^+$ and $CD8^+$ T Cells Kill Intracellular *Mycobacterium tuberculosis* by a Perforin and Fas/Fas Ligand-Independent Mechanism
David H. Canaday, Robert J. Wilkinson, Qing Li, Clifford V. Harding, Richard F. Silver, and W. Henry Boom

2743 Vpr Is Preferentially Targeted by CTL During HIV-1 Infection
Marcus Altfeld, Marylyn M. Addo, Robert L. Eldridge, Xu G. Yu, Seddon Thomas, Ashok Khatri, Daryld Strick, Mary N. Phillips, George B. Cohen, Sabina A. Islam, Spyros A. Kalams, Christian Brander, Philip J. R. Goulder, Eric S. Rosenberg, Bruce D. Walker, and the HIV Study Collaboration

2753 Concurrent Naive and Memory $CD8^+$ T Cell Responses to an Influenza A Virus
Stephen J. Turner, Richard Cross, Weidong Xie, and Peter C. Doherty

2759 Critical Role of Lipopolysaccharide-Binding Protein and CD14 in Immune Responses against Gram-Negative Bacteria
Didier Le Roy, Franco Di Padova, Yoshiyuki Adachi, Michel Pierre Glauser, Thierry Calandra, and Didier Heumann

2766 HIV-1 Tat Induces Microvascular Endothelial Apoptosis Through Caspase Activation
In-Woo Park, Christina K. Ullrich, Elena Schoenberger, Ramesh K. Ganju, Jerome E. Groopman

Inflammation

2772 Lipoxin A_4 and Aspirin-Triggered 15-Epi-Lipoxin A_4 Antagonize TNF-α-Stimulated Neutrophil-Enterocyte Interactions In Vitro and Attenuate TNF-α-Induced Chemokine Release and Colonocyte Apoptosis in Human Intestinal Mucosa Ex Vivo
Jason Goh, Alan W. Baird, Conor O'Keane, R. William G. Watson, David Cottell, Giovanni Bernasconi, Nicos A. Petasis, Catherine Godson, Hugh R. Brady, and Padraic MacMathuna

2781 Elimination of Colonic Patches with Lymphotoxin β Receptor-Ig Prevents Th2 Cell-Type Colitis
Taeko Dohi, Paul D. Rennert, Kohtaro Fujihashi, Hiroshi Kiyono, Yuko Shirai, Yuki I. Kawamura, Jeffrey L. Browning, and Jerry R. McGhee

2791 Increased Susceptibility of Decay-Accelerating Factor Deficient Mice to Anti-Glomerular Basement Membrane Glomerulonephritis
Hajime Sogabe, Masaomi Nangaku, Yoshitaka Ishibashi, Takehiko Wada, Toshiro Fujita, Xiujun Sun, Takashi Miwa, Michael P. Madaio, and Wen-Chao Song

2798 Murine Cytomegalovirus Infection Alters Th1/Th2 Cytokine Expression, Decreases Airway Eosinophilia, and Enhances Mucus Production in Allergic Airway Disease
Carol A. Wu, Lynn Puddington, Herbert E. Whiteley, Carmen A. Yiamouyiannis, Craig M. Schramm, Fusaini Mohammadu, and Roger S. Thrall

2808 Eotaxin Represents the Principal Eosinophil Chemoattractant in a Novel Murine Asthma Model Induced by House Dust Containing Cockroach Allergens
Jiyoun Kim, Andrew C. Merry, Jean A. Nemzek, Gerry L. Bolgos, Javed Siddiqui, and Daniel G. Remick

2816 IL-8 Released Constitutively by Primary Bronchial Epithelial Cells in Culture Forms an Inactive Complex with Secretory Component
Lindsay J. Marshall, Beatrice Perks, Thomas Ferkol, and Janis K. Shute

2824 The Affinity of Integrin $\alpha_4\beta_1$ Governs Lymphocyte Migration
David M. Rose, Valentin Grabovsky, Ronen Alon, and Mark H. Ginsberg

2831 Roles of Cyclooxygenase (COX)-1 and COX-2 in Prostanoid Production by Human Endothelial Cells: Selective Up-Regulation of Prostacyclin Synthesis by COX-2
Gillian E. Caughey, Leslie G. Cleland, Peter S. Penglis, Jennifer R. Gamble, and Michael J. James

2839 CD18 Dependency of Transendothelial Neutrophil Migration Differs During Acute Pulmonary Inflammation
A. Jill Mackarel, Kenneth J. Russell, Clodagh M. Ryan, Shirley J. Hislip, Jacqueline C. Rendall, Muiris X. FitzGerald, and Clare M. O'Connor

2847 A Novel Function of Phosphorothioate Oligodeoxynucleotides as Chemoattractants for Primary Macrophages
Kwan Hyuck Baek, Sang Jun Ha, and Young Chul Sung

2855 IL-13 and IL-4 Up-Regulate Cysteinyl Leukotriene 1 Receptor Expression in Human Monocytes and Macrophages
Maryse Thivierge, Jana Stańková, and Marek Rola-Pleszczynski

2861 Human IgA Activates the Complement System Via the Mannan-Binding Lectin Pathway
Anja Roos, Lee H. Bouwman, Daniëlle J. van Gijlswijk-Janssen, Maria C. Faber-Krol, Gregory L. Stahl, and Mohamed R. Daha

2869 Fibrinogen Induces IL-8 Synthesis in Human Neutrophils Stimulated with Formyl-Methionyl-Leucyl-Phenylalanine or Leukotriene B_4
Douglas B. Kuhns, Edward L. Nelson, W. Gregory Alvord, and John I. Gallin

2879 A Role for IL-18 in Neutrophil Activation
Bernard P. Leung, Shauna Culshaw, J. Alastair Gracie, David Hunter, Claudio A. Canetti, Carol Campbell, Fernando Cunha, Foo Y. Liew, and Iain B. McInnes

2887 Fibrinogen Stimulates Macrophage Chemokine Secretion Through Toll-Like Receptor 4
Stephen T. Smiley, Jennifer A. King, and Wayne W. Hancock

2895 Differential Role of CD18 Integrins in Mediating Lung Neutrophil Sequestration and Increased Microvascular Permeability Induced by *Escherichia coli* in Mice
Xiao-pei Gao, Ning Xu, Marin Sekosan, Dolly Mehta, Shuang Y. Ma, Arshad Rahman, and Asrar B. Malik

2902 Bystander Activation Involving T Lymphocytes in Herpetic Stromal Keratitis
Shilpa Deshpande, Mei Zheng, Sujin Lee, Kaustuv Banerjee, Shivaprakash Gangappa, Udayasankar Kumaraguru, and Barry T. Rouse

2911 Methotrexate Suppresses NF-κB Activation Through Inhibition of IκBα Phosphorylation and Degradation
Sekhar Majumdar and Bharat B. Aggarwal

2921 Lactoferrin Binds CpG-Containing Oligonucleotides and Inhibits Their Immunostimulatory Effects on Human B Cells
Bradley E. Britigan, Troy S. Lewis, Mari Waldschmidt, Michael L. McCormick, and Arthur M. Krieg

CLINICAL IMMUNOLOGY

2929 Enhanced Dendritic Cell-Driven Proliferation and Anti-HIV Activity of $CD8^+$ T Cells by a New Phenothiazine Derivative, Aminoperazine
Wei Lu, Amar Achour, Marine Artie, Li Cao, and Jean-Marie Andrieu

2936 Accumulation and Activation-Induced Release of Preformed Fas (CD95) Ligand During the Pathogenesis of Experimental Graft-Versus-Host Disease
Christoph Wasem, Corina Frutschi, Diana Arnold, Claudio Vallan, Tesu Lin, Douglas R. Green, Christoph Mueller, and Thomas Brunner

2942 Prevention of Experimental Autoimmune Encephalomyelitis in the Common Marmoset (*Callithrix jacchus*) Using a Chimeric Antagonist Monoclonal Antibody Against Human CD40 Is Associated with Altered B Cell Responses
Louis Boon, Herbert P. M. Brok, Jan Bauer, Antonio Ortiz-Buijsse, Marc M. Schellekens, Seema Ramdien-Murli, Erwin Blezer, Marjan van Meurs, Jan Ceuppens, Mark de Boer, Bert A. 't Hart, and Jon D. Laman

2950 Plasmid Vaccination with Insulin B Chain Prevents Autoimmune Diabetes in Nonobese Diabetic Mice
Adrian Bot, Dan Smith, Simona Bot, Anna Hughes, Tom Wolfe, Lilin Wang, Catherine Woods, and Matthias von Herrath

2956 Immunoreactivity of Organic Mimeotopes of the E2 Component of Pyruvate Dehydrogenase: Connecting Xenobiotics with Primary Biliary Cirrhosis
S. Alice Long, Chao Quan, Judy Van de Water, Michael H. Nantz, Mark J. Kurth, Daniel Barsky, Michael E. Colvin, Kit S. Lam, Ross L. Coppel, Aftab Ansari, and M. Eric Gershwin

2964 Absence of Macrophage-Inflammatory Protein-1α Delays Central Nervous System Demyelination in the Presence of an Intact Blood-Brain Barrier
Eileen J. McMahon, Don N. Cook, Kinuko Suzuki, and Glenn K. Matsushima

2972 Predominant Th2/Tc2 Polarity of Tumor-Infiltrating Lymphocytes in Human Cervical Cancer
Bor-Ching Sheu, Rong-Hwa Lin, Huang-Chun Lien, Hong-Nerng Ho, Su-Ming Hsu, and Su-Cheng Huang

2979 Early Chemokine Cascades in Murine Cardiac Grafts Regulate T Cell Recruitment and Progression of Acute Allograft Rejection
Ken Morita, Masayoshi Miura, David R. Paolone, Tara M. Engeman, Anil Kapoor, Daniel G. Remick, and Robert L. Fairchild

2985 Deficiency in β_2-Microglobulin, But Not CD1, Accelerates Spontaneous Lupus Skin Disease While Inhibiting Nephritis in MRL-Fas^{lpr} Mice: An Example of Disease Regulation at the Organ Level
Owen T. M. Chan, Vipin Paliwal, Jennifer M. McNiff, Se-Ho Park, Albert Bendelac, and Mark J. Shlomchik

2991 Critical Involvement of OX40 Ligand Signals in the T Cell Priming Events During Experimental Autoimmune Encephalomyelitis
Lishomwa C. Ndhlovu, Naoto Ishii, Kazuko Murata, Takayuki Sato, and Kazuo Sugamura

3000 Control of the Autoimmune Response by Type 2 Nitric Oxide Synthase
Fu-Dong Shi, Malin Flodström, Soon Ha Kim, Shyam Pakala, Mary Cleary, Hans-Gustaf Ljunggren, and Nora Sarvetnick

3007 Author Index

3011 AAI Membership Application

3012 AAI Trainee Membership Application

VOLUME 167 / Nº 6 / SEPTEMBER 15, 2001

CUTTING EDGE

3025 Cutting Edge: Altered Pulmonary Eosinophilic Inflammation in Mice Deficient for Clara Cell Secretory 10-kDa Protein
Li-Chen Chen, Zhongjian Zhang, Allen C. Myers, and Shau-Ku Huang

3029 Cutting Edge: The Spirochetemia of Murine Relapsing Fever Is Cleared by Complement-Independent Bactericidal Antibodies
Sean E. Connolly and Jorge L. Benach

CELLULAR IMMUNOLOGY AND IMMUNE REGULATION

3033 Relatively Normal Human Lymphopoiesis but Rapid Turnover of Newly Formed B Cells in Transplanted Nonobese Diabetic/SCID Mice
Maria Isabel D. Rossi, Kay L. Medina, Karla Garrett, Grant Kolar, Phillip C. Comp, Leonard D. Shultz, J. Donald Capra, Patrick Wilson, Arthur Schipul, and Paul W. Kincade

3043 Dissociation of Hemopoietic Chimerism and Allograft Tolerance After Allogeneic Bone Marrow Transplantation
Akihisa Umemura, Hirofumi Morita, Xian Chang Li, Steven Tahan, Anthony P. Monaco, and Takashi Maki

3049 Regulation of Fas Ligand-Induced Apoptosis by TNF
Bennett D. Elzey, Thomas S. Griffith, John M. Herndon, Ramon Barreiro, Jurg Tschopp, and Thomas A. Ferguson

3057 Gene Microarrays Reveal Extensive Differential Gene Expression in Both $CD4^+$ and $CD8^+$ Type 1 and Type 2 T Cells
Tatyana Chtanova, Roslyn A. Kemp, Andrew P. R. Sutherland, Franca Ronchese, and Charles R. Mackay

3064 Diverse Transcriptional Response of $CD4^+$ T Cells to Stromal Cell-Derived Factor (SDF)-1: Cell Survival Promotion and Priming Effects of SDF-1 on $CD4^+$ T Cells
Yasuhiro Suzuki, Monzur Rahman, and Hiroaki Mitsuya

3074 The Role of IFN-γ in the Production of Th2 Subpopulations: Implications for Variable Th2-Mediated Pathologies in Autoimmunity
Allen Wensky, Maria Cecília Garibaldi Marcondes, and Juan J. Lafaille

3082 Direct Recognition of Foreign MHC Determinants by Naive T Cells Mobilizes Specific Vβ Families Without Skewing of the Complementarity-Determining Region 3 Length Distribution
Fabien Sebille, Katia Gagne, Marina Guillet, Nicolas Degauque, Annaïck Pallier, Sophie Brouard, Bernard Vanhove, Marc-André Delsuc, and Jean-Paul Soulillou

3089 Tumor-Specific Responses in Lymph Nodes Draining Murine Sarcomas Are Concentrated in Cells Expressing P-Selectin Binding Sites
Keishi Tanigawa, Nobuhiro Takeshita, Ronald A. Craig, Katie Phillips, Randall N. Knibbs, Alfred E. Chang, and Lloyd M. Stoolman

3099 Human Endothelial-Cell Specific Molecule-1 Binds Directly to the Integrin CD11a/CD18 (LFA-1) and Blocks Binding to Intercellular Adhesion Molecule-1
David Béchard, Arnaud Scherpereel, Hamida Hammad, Thibaut Gentina, Anne Tsicopoulos, Marc Aumercier, Jöel Pestel, Jean-Paul Dessaint, André-Bernard Tonnel, and Philippe Lassalle

3107 Differentiation of Regulatory T Cells 1 Is Induced by CD2 Costimulation
Abdelilah Wakkach, Françoise Cottrez, and Hervé Groux

3114 Human NKT Cells Mediate Antitumor Cytotoxicity Directly by Recognizing Target Cell CD1d with Bound Ligand or Indirectly by Producing IL-2 to Activate NK Cells
Leonid S. Metelitsa, Olga V. Naidenko, Anita Kant, Hong-Wei Wu, Matthew J. Loza, Bice Perussia, Mitchell Kronenberg, and Robert C. Seeger

3123 CD28 Is Not Required for c-Jun N-Terminal Kinase Activation in T Cells
Fabiola V. Rivas, Sean O'Herrin, and Thomas F. Gajewski

3129 Selective Expansion and Partial Activation of Human NK Cells and NK Receptor-Positive T Cells by IL-2 and IL-15
Jean Dunne, Sara Lynch, Cliona O'Farrelly, Stephen Todryk, John E. Hegarty, Conleth Feighery, and Derek G. Doherty

3139 Regulation of IgE Production Requires Oligomerization of CD23
Michelle A. Kilmon, Rodolfo Ghirlando, Marie-Paule Strub, Rebecca L. Beavil, Hannah J. Gould, and Daniel H. Conrad

3146 Eosinophils Promote Allergic Disease of the Lung by Regulating $CD4^+$ Th2 Lymphocyte Function
Jason R. MacKenzie, Joerg Mattes, Lindsay A. Dent, and Paul S. Foster

3156 A New IFN-Like Cytokine, Limitin Modulates the Immune Response Without Influencing Thymocyte Development
Isao Takahashi, Hiroshi Kosaka, Kenji Oritani, William R. Heath, Jun Ishikawa, Yu Okajima, Megumu Ogawa, Sin-ichiro Kawamoto, Masahide Yamada, Hiroaki Azukizawa, Satoshi Itami, Kunihiko Yoshikawa, Yoshiaki Tomiyama, and Yuji Matsuzawa

3164 Disruption of NF-κB Signaling Reveals a Novel Role for NF-κB in the Regulation of TNF-Related Apoptosis-Inducing Ligand Expression
Tudor M. Baetu, Hakju Kwon, Sonia Sharma, Nathalie Grandvaux, and John Hiscott

3174 Signaling Lymphocytic Activation Molecule Is Expressed on CD40 Ligand-Activated Dendritic Cells and Directly Augments Production of Inflammatory Cytokines
Joshua R. Bleharski, Kayvan R. Niazi, Peter A. Sieling, Genhong Cheng, and Robert L. Modlin

3182 Pituitary Adenylate Cyclase-Activating Polypeptide Inhibits Collagen-Induced Arthritis: An Experimental Immunomodulatory Therapy
Catalina Abad, Carmen Martinez, Javier Leceta, Rosa P. Gomariz, and Mario Delgado

3190 CD19 Can Regulate B Lymphocyte Signal Transduction Independent of Complement Activation
Minoru Hasegawa, Manabu Fujimoto, Jonathan C. Poe, Douglas A. Steeber, and Thomas F. Tedder

3201 Vaccination with Cytoplasmic ErbB-2 DNA Protects Mice from Mammary Tumor Growth Without Anti-ErbB-2 Antibody
Shari A. Pilon, Marie P. Piechocki, and Wei-Zen Wei

3207 Modulation of Human T Cell Responses and Macrophage Functions by Onchocystatin, a Secreted Protein of the Filarial Nematode *Onchocerca volvulus*
Annett Schönemeyer, Richard Lucius, Bettina Sonnenburg, Norbert Brattig, Robert Sabat, Klaus Schilling, Janette Bradley, and Susanne Hartmann

MOLECULAR AND STRUCTURAL IMMUNOLOGY

3216 Activation of Eotaxin-3/CCL26 Gene Expression in Human Dermal Fibroblasts Is Mediated by STAT6
Jutta Hoeck and Maximilian Woisetschläger

3223 The HA-2 Minor Histocompatibility Antigen Is Derived from a Diallelic Gene Encoding a Novel Human Class I Myosin Protein
Richard A. Pierce, Erin D. Field, Tuna Mutis, Tatiana N. Golovina, Chris Von Kap-Herr, Martina Wilke. Jos Pool, Jeffrey Shabanowitz, Mark J. Pettenati, Laurence C. Eisenlohr, Donald F. Hunt, Els Goulmy, and Victor H. Engelhard

3231 Down-Regulation of CD28 Expression by TNF-α
Ewa Bryl, Abbe N. Vallejo, Cornelia M. Weyand, and Jörg J. Goronzy

3239 Antibody Repertoire Development in Fetal And Neonatal Piglets. IV. Switch Recombination, Primarily in Fetal Thymus, Occurs Independent of Environmental Antigen and Is Only Weakly Associated with Repertoire Diversification
John E. Butler, Jishan Sun, Patrick Weber, Steven P. Ford, Zuzana Rehakova, Jiri Sinkora, and Kelly Lager

3250 T Cell Selection and Differential Activation on Structurally Related HLA-DR4 Ligands
John A. Gebe, Erik J. Novak, William W. Kwok, Andy G. Farr, Gerald T. Nepom, and Jane H. Buckner

3257 HS1,2 Enhancer Regulation of Germline ϵ and γ2b Promoters in Murine B Lymphocytes: Evidence for Specific Promoter-Enhancer Interactions
Jurga Laurencikiene, Vilma Deveikaite, and Eva Severinson

3266 Humanization and Epitope Mapping of Neutralizing Anti-Human Fas Ligand Monoclonal Antibodies: Structural Insights into Fas/Fas Ligand Interaction
Tsukasa Nisihara, Yoshitaka Ushio, Hirohumi Higuchi, Nobuhiko Kayagaki, Noriko Yamaguchi, Kenji Soejima, Seishi Matsuo, Hiroaki Maeda, Yasuyuki Eda, Ko Okumura, and Hideo Yagita

3276 Crystal Structures of Two Closely Related but Antigenically Distinct HLA-A2/Melanocyte-Melanoma Tumor-Antigen Peptide Complexes
Piotr Sliz, Olivier Michielin, Jean-Charles Cerottini, Immanuel Luescher, Pedro Romero, Martin Karplus, and Don C. Wiley

3285 An Important Role of CDK Inhibitor $p18^{INK4c}$ in Modulating Antigen Receptor-Mediated T Cell Proliferation
Grigoriy I. Kovalev, David S. Franklin, V. McNeil Coffield, Yue Xiong, and Lishan Su

3293 Antigen-Specific $CD8^+$ T Cells Persist in the Upper Respiratory Tract Following Influenza Virus Infection
James A. Wiley, Robert J. Hogan, David L. Woodland, and Allen G. Harmsen

3300 ATP-Mediated Killing of Intracellular Mycobacteria by Macrophages Is a $P2X_7$-Dependent Process Inducing Bacterial Death by Phagosome-Lysosome Fusion
Ian P. Fairbairn, Carmel B. Stober, Dinakantha S. Kumararatne, and David A. Lammas

3308 ATP Stimulates Human Macrophages to Kill Intracellular Virulent *Mycobacterium tuberculosis* Via Calcium-Dependent Phagosome-Lysosome Fusion
David J. Kusner and James A. Barton

HOST DEFENSE

3316 Predominant Role of Toll-Like Receptor 2 Versus 4 in *Chlamydia pneumoniae*-Induced Activation of Dendritic Cells
Sigrid Prebeck, Carsten Kirschning, Susanne Dürr, Clarissa da Costa, Bernadette Donath, Korbinian Brand, Vanessa Redecke, Hermann Wagner, and Thomas Miethke

3324 Sterically Stabilized Cationic Liposomes Improve the Uptake and Immunostimulatory Activity of CpG Oligonucleotides
Ihsan Gursel, Mayda Gursel, Ken J. Ishii, and Dennis M. Klinman

3329 Cathelicidin Family of Antibacterial Peptides CAP18 and CAP11 Inhibit the Expression of TNF-α by Blocking the Binding of LPS to $CD14^+$ Cells
Isao Nagaoka, Satoko Hirota, François Niyonsaba, Michimasa Hirata, Yoshiyuki Adachi, Hiroshi Tamura, and Didier Heumann

3339 Mycobacteria-Induced TNF-α and IL-10 Formation by Human Macrophages Is Differentially Regulated at the Level of Mitogen-Activated Protein Kinase Activity
Norbert Reiling, Antje Blumenthal, Hans-Dieter Flad, Martin Ernst, and Stefan Ehlers

3346 IL-12-Independent IFN-γ Production by T Cells in Experimental Chagas' Disease Is Mediated by IL-18
Uwe Müller, Gabriele Köhler, Horst Mossmann, Günter A. Schaub, Gottfried Alber, James P. Di Santo, Frank Brombacher, and Christoph Hölscher

3354 *N*-Linked Glycosylations at Asn^{26} and Asn^{114} of Human MD-2 Are Required for Toll-Like Receptor 4-Mediated Activation of NF-κB by Lipopolysaccharide
Takahiro Ohnishi, Masashi Muroi, and Ken-ichi Tanamoto

3360 Synergistic Induction of Apoptosis in Primary $CD4^+$ T Cells by Macrophage-Tropic HIV-1 and TGF-β1
Jinhai Wang, Ennan Guan, Gregory Roderiquez, and Michael A. Norcross

3367 Complementary Antitumor Immunity Induced by Plasmid DNA Encoding Secreted and Cytoplasmic Human ErbB-2
Marie P. Piechocki, Shari A. Pilon, and Wei-Zen Wei

3375 The Effect of an Anti-HLA-B27 Immune Response on CTL Recognition of *Chlamydia*
Igor Popov, Charles S. Dela Cruz, Brian H. Barber, Basil Chiu, and Robert D. Inman

3383 *Borrelia burgdorferi*-Induced Inflammation Facilitates Spirochete Adaptation and Variable Major Protein-Like Sequence Locus Recombination
Juan Anguita, Venetta Thomas, Swapna Samanta, Rafal Persinski, Carmen Hernanz, Stephen W. Barthold, and Erol Fikrig

3391 Sodium Stibogluconate Is a Potent Inhibitor of Protein Tyrosine Phosphatases and Augments Cytokine Responses in Hemopoietic Cell Lines
Manas K. Pathak and Taolin Yi

3398 CTA1-DD-Immune Stimulating Complexes: a Novel, Rationally Designed Combined Mucosal Vaccine Adjuvant Effective with Nanogram Doses of Antigen
Allan M. I. Mowat, Anne M. Donachie, Sara Jägewall, Karin Schön, Björn Löwenadler, Kristian Dalsgaard, Peter Kaastrup, and Nils Lycke

INFLAMMATION

3406 Urokinase Plasminogen Activator and Plasmin Efficiently Convert Hemofiltrate CC Chemokine 1 into Its Active [9–74] Processed Variant
Jalal Vakili, Ludger Ständker, Michel Detheux, Gilbert Vassart, Wolf-Georg Forssmann, and Marc Parmentier

3414 Calcium-Independent Phospholipase A_2 Is Required for Human Monocyte Chemotaxis to Monocyte Chemoattractant Protein 1
Kevin A. Carnevale and Martha K. Cathcart

3422 Trypanocidal Drug Benznidazole Impairs Lipopolysaccharide Induction of Macrophage Nitric Oxide Synthase Gene Transcription Through Inhibition of NF-κB Activation
Eliane Piaggio, Josiane Sancéau, Silvia Revelli, Oscar Bottasso, Juana Wietzerbin, and Esteban Serra

3427 Drastic Up-Regulation of FcεRI on Mast Cells Is Induced by IgE Binding Through Stabilization and Accumulation of FcεRI on the Cell Surface
Shuichi Kubo, Kunie Matsuoka, Choji Taya, Fujiko Kitamura, Toshiyuki Takai, Hiromichi Yonekawa, and Hajime Karasuyama

3435 The IL-6-Soluble IL-6Rα Autocrine Loop of Endothelial Activation as an Intermediate Between Acute and Chronic Inflammation: an Experimental Model Involving Thrombin
Valérie Marin, Felix A. Montero-Julian, Sandra Grès, Vera Boulay, Pierre Bongrand, Catherine Farnarier, and Gilles Kaplanski

3443 IL-3 Induces Down-Regulation of CCR3 Protein and mRNA in Human Eosinophils
Yasmin Dulkys, Christof Kluthe, Thomas Buschermöhle, Ines Barg, Sabine Knöß, Alexander Kapp, Amanda E. I. Proudfoot, and Jörn Elsner

3454 Curcumin Inhibits Activation of Vγ9Vδ2 T Cells by Phosphoantigens and Induces Apoptosis Involving Apoptosis-Inducing Factor and Large Scale DNA Fragmentation
Barbara Cipriani, Giovanna Borsellino, Heather Knowles, Daniela Tramonti, Fabio Cavaliere, Giorgio Bernardi, Luca Battistini, and Celia F. Brosnan

3463 Midkine Is Involved in Neutrophil Infiltration into the Tubulointerstitium in Ischemic Renal Injury
Waichi Sato, Kenji Kadomatsu, Yukio Yuzawa, Hisako Muramatsu, Nigishi Hotta, Seiichi Matsuo, and Takashi Muramatsu

CLINICAL IMMUNOLOGY

3470 The Central Nervous System Inflammatory Response to Neurotropic Virus Infection Is Peroxynitrite Dependent
D. Craig Hooper, Rhonda B. Kean, Gwen S. Scott, Sergei V. Spitsin, Tatiana Mikheeva, Kinjiro Morimoto, Michael Bette, Annette M. Röhrenbeck, Bernhard Dietzschold, and Eberhard Weihe

3478 An Antagonist IL-15/Fc Protein Prevents Costimulation Blockade-Resistant Rejection
Sylvie Ferrari-Lacraz, Xin Xiao Zheng, Yon Su Kim, Yongsheng Li, Wlodzimierz Maslinski, Xian Chang Li, and Terry B. Strom

3486 Terminal Deoxynucleotidyl Transferase Deficiency Decreases Autoimmune Disease in MRL-*Fas*^{lpr} Mice
Ann J. Feeney, Brian R. Lawson, Dwight H. Kono, and Argyrios N. Theofilopoulos

3494 Monokine Induced by IFN-γ Is a Dominant Factor Directing T Cells into Murine Cardiac Allografts During Acute Rejection
Masayoshi Miura, Ken Morita, Hirohito Kobayashi, Thomas A. Hamilton, Marie D. Burdick, Robert M. Strieter, and Robert L. Fairchild

3505 IL-10-Deficient B10.Q Mice Develop More Severe Collagen-Induced Arthritis, but Are Protected from Arthritis Induced with Anti-Type II Collagen Antibodies
Åsa C. M. Johansson, Ann-Sofie Hansson, Kutty S. Nandakumar, Johan Bäcklund, and Rikard Holmdahl

3513 T Cell Activation by Coxsackievirus B4 Antigens in Type 1 Diabetes Mellitus: Evidence for Selective TCR Vβ Usage Without Superantigenic Activity
Ruben Varela-Calvino, Gianluca Sgarbi, Lucy R. Wedderburn, Colin M. Dayan, Jenny Tremble, and Mark Peakman

3521 Severe Perturbations of the Blood T Cell Repertoire in Polymyositis, But Not Dermatomyositis Patients
Olivier Benveniste, Patrick Chérin, Thierry Maisonobe, Rastine Merat, Olivier Chosidow, Luc Mouthon, Loïc Guillevin, Antoine Flahault, Marie-Christine Burland, David Klatzmann, Serge Herson, and Olivier Boyer

3530 Corrections

3533 AAI Membership Application

3534 AAI Trainee Membership Application

VOLUME 167 / Nº 7 / OCTOBER 1, 2001

CUTTING EDGE

3545 Cutting Edge: STAT Activation By IL-19, IL-20 and mda-7 Through IL-20 Receptor Complexes of Two Types
Laure Dumoutier, Caroline Leemans, Diane Lejeune, Sergei V. Kotenko, and Jean-Christophe Renauld

3550 Cutting Edge: Identification of a Hybrid Cytokine Consisting of IL-7 and the β-Chain of the Hepatocyte Growth Factor/Scatter Factor
Laijun Lai and Irving Goldschneider

3555 Cutting Edge: Role of Toll-Like Receptor 9 in CpG DNA-Induced Activation of Human Cells
Fumihiko Takeshita, Cynthia A. Leifer, Ihsan Gursel, Ken J. Ishii, Saoko Takeshita, Mayda Gursel, and Dennis M. Klinman

3559 Cutting Edge: Differential Regulation of Chemoattractant Receptor-Induced Degranulation and Chemokine Production by Receptor Phosphorylation
Jasimuddin Ahamed, Bodduluri Haribabu, and Hydar Ali

CELLULAR IMMUNOLOGY AND IMMUNE REGULATION

3565 Tumoricidal Activity of Monocyte-Derived Dendritic Cells: Evidence for a Caspase-8-Dependent, Fas-Associated Death Domain-Independent Mechanism
Nathalie Vanderheyde, Ezra Aksoy, Zoulikha Amraoui, Peter Vandenabeele, Michel Goldman, and Fabienne Willems

3570 Molecular Cloning of F4/80-Like-Receptor, a Seven-Span Membrane Protein Expressed Differentially by Dendritic Cell and Monocyte-Macrophage Subpopulations
Irina Caminschi, Karen M. Lucas, Meredith A. O'Keeffe, Hubertus Hochrein, Yacine Laâbi, Frank Köntgen, Andrew M. Lew, Ken Shortman, and Mark D. Wright

3577 Redundancy of Direct Priming and Cross-Priming in Tumor-Specific $CD8^+$ T Cell Responses
Monika C. Wolkers, Gerd Stoetter, Florry A. Vyth-Dreese, and Ton N. M. Schumacher

3585 A Pivotal Role of Rho GTPase in the Regulation of Morphology and Function of Dendritic Cells
Michihiro Kobayashi, Eiichi Azuma, Masaru Ido, Masahiro Hirayama, Qi Jiang, Shotaro Iwamoto, Tadashi Kumamoto, Hatsumi Yamamoto, Minoru Sakurai, and Yoshihiro Komada

3592 Plasmid DNA Encoding CCR7 Ligands Compensate for Dysfunctional $CD8^+$ T Cell Responses by Effects on Dendritic Cells
Seong Kug Eo, Udayasankar Kumaraguru, and Barry T. Rouse

3600 An Atypical Population of NK Cells That Spontaneously Secrete IFN-γ and IL-4 Is Present in the Intraepithelial Lymphoid Compartment of the Rat
Derrick J. Todd, Dale L. Greiner, Aldo A. Rossini, John P. Mordes, and Rita Bortell

3610 Bm1–Bm5 Classification of Peripheral Blood B Cells Reveals Circulating Germinal Center Founder Cells in Healthy Individuals and Disturbance in the B Cell Subpopulations in Patients with Primary Sjögren's Syndrome
Janne Ø. Bohnhorst, Marie B. Bjørgan, Jørn E. Thoen, Jacob B. Natvig, and Keith M. Thompson

3619 IL-10 Inhibits Granulocyte-Macrophage Colony-Stimulating Factor-Dependent Human Monocyte Survival at the Early Stage of the Culture and Inhibits the Generation of Macrophages
Shin-ichi Hashimoto, Iwao Komuro, Muneo Yamada, and Kiyoko S. Akagawa

3626 Mechanisms of Nuclear Import and Export That Control the Subcellular Localization of Class II Transactivator
Drew E. Cressman, William J. O'Connor, Susanna F. Greer, Xin-Sheng Zhu, and Jenny P.-Y. Ting

3635 Delineation of Intrathymic T, NK, and Dendritic Cell (DC) Progenitors in Fetal and Adult Rats: Demonstration of a Bipotent T/DC Intermediate Precursor
Luis M. Alonso-C., Juan J. Muñoz, and Agustín G. Zapata

3642 L-Selectin Shedding Is Independent of Its Subsurface Structures and Topographic Distribution
Brian P. Fors, Katayoon Goodarzi, and Ulrich H. von Andrian

3652 STAT5 Induces Macrophage Differentiation of M1 Leukemia Cells Through Activation of IL-6 Production Mediated by NF-κB p65
Toshiyuki Kawashima, Ken Murata, Shizuo Akira, Yukio Tonozuka, Yukinori Minoshima, Sizhou Feng, Hidetoshi Kumagai, Hiromichi Tsuruga, Yasuo Ikeda, Shigetaka Asano, Tetsuya Nosaka, and Toshio Kitamura

3661 TGF-β-Producing $CD4^+$ Mediastinal Lymph Node Cells Obtained from Mice Tracheally Tolerized to Ovalbumin (OVA) Suppress Both Th1- and Th2-Induced Cutaneous Inflammatory Responses to OVA by Different Mechanisms[1]
Tadashi Terui, Kunio Sano, Hidekazu Shirota, Nagisa Kunikata, Maki Ozawa, Mikiko Okada, Motoko Honda, Gen Tamura, and Hachiro Tagami

3668 CD84 Functions as a Homophilic Adhesion Molecule and Enhances IFN-γ Secretion: Adhesion Is Mediated by Ig-Like Domain 1
Margarita Martin, Xavier Romero, Miguel Angel de la Fuente, Victoria Tovar, Núria Zapater, Enric Esplugues, Pilar Pizcueta, Jaime Bosch, and Pablo Engel

3677 Morphine Inhibits Mucosal Antibody Responses and TGF-β mRNA in Gut-Associated Lymphoid Tissue Following Oral Cholera Toxin in Mice
Xiaohui Peng, John J. Cebra, Martin W. Adler, Joseph J. Meissler, Jr., Alan Cowan, Pu Feng, and Toby K. Eisenstein

3682 Histamine Polarizes Human Dendritic Cells into Th2 Cell-Promoting Effector Dendritic Cells
Gersende Caron, Yves Delneste, Edith Roelandts, Catherine Duez, Jean-Yves Bonnefoy, Joel Pestel, and Pascale Jeannin

3687 Th1 Cytokine-Conditioned Bone Marrow-Derived Dendritic Cells Can Bypass the Requirement for Th Functions During the Generation of $CD8^+$ CTL
Marimo Sato, Kenji Chamoto, Takemasa Tsuji, Yoichiro Iwakura, Yuji Togashi, Toshiaki Koda, and Takashi Nishimura

3692 Both $CD34^+38^+$ and $CD34^+38^-$ Cells Home Specifically to the Bone Marrow of NOD/LtSZ *scid/scid* Mice but Show Different Kinetics in Expansion
Tessa C. C. Kerre, Greet De Smet, Magda De Smedt, Fritz Offner, José De Bosscher, Jean Plum, and Bart Vandekerckhove

3699 A Closer Look at Homeostatic Proliferation of $CD4^+$ T Cells: Costimulatory Requirements and Role in Memory Formation
Hrefna Gudmundsdottir and Laurence A. Turka

3708 Antigen-Specific Modulation of an Immune Response by In Vivo Administration of Soluble MHC Class I Tetramers
Robert Maile, Bo Wang, Wesley Schooler, Anthony Meyer, Edward J. Collins, and Jeffrey A. Frelinger

3715 Integrin Functions Play a Key Role in the Differentiation of Thymocytes In Vivo
Peter J. Schmeissner, Haichun Xie, Lubomir B. Smilenov, Fengyu Shu, and Eugene E. Marcantonio

3725 IL-4 Therapy Prevents the Development of Proteinuria in Active Heymann Nephritis by Inhibition of Tc1 Cells
S. Timothy Spicer, Hong Ha, Rochelle A. Boyd, Xiao Y. He, Nicole Carter, Giang Tran, Mark J. Penny, Suzanne J. Hodgkinson, and Bruce M. Hall

3734 Analysis of VpreB Expression During B Lineage Differentiation in λ5-Deficient Mice
Robert P. Stephan, Eynav Elgavish, Hajime Karasuyama, Hiromi Kubagawa, and Max D. Cooper

3740 Infiltration of Canonical Vγ4/Vδ1 γδ T Cells in an Adriamycin-Induced Progressive Renal Failure Model
Takashi Ando, Huiling Wu, Debbie Watson, Tadashi Hirano, Hideki Hirakata, Masatoshi Fujishima, and John F. Knight

3746 The Rearranged V_H Domain of a Physiologically Selected Anti-Single-Stranded DNA Antibody as a Precursor for Formation of IgM and IgG Antibodies to Diverse Antigens
Jing Li, Luis Fernandez, Kevin C. O'Connor, Thereza Imanishi-Kari, and B. David Stollar

3756 Examination of HY Response: T Cell Expansion, Immunodominance, and Cross-Priming Revealed by HY Tetramer Analysis
Maggie Millrain, Phillip Chandler, Francesco Dazzi, Diane Scott, Elizabeth Simpson, and P. Julian Dyson

3765 Cytotoxic Activity of Human Dendritic Cells Is Differentially Regulated by Double-Stranded RNA and CD40 Ligand
Pierre-Olivier Vidalain, Olga Azocar, Hideo Yagita, Chantal Rabourdin-Combe, and Christine Servet-Delprat

3773 Ceramide Mediates Tumor-Induced Dendritic Cell Apoptosis
Tatsuya Kanto, Pawel Kalinski, Oriana C. Hunter, Michael T. Lotze, and Andrew A. Amoscato

3785 Oxidized Low-Density Lipoprotein Promotes Mature Dendritic Cell Transition from Differentiating Monocyte
Laure Perrin-Cocon, Frederic Coutant, Sophie Agaugué, Séverine Deforges, Patrice André, and Vincent Lotteau

3792 Active Vaccination Against IL-5 Bypasses Immunological Tolerance and Ameliorates Experimental Asthma
Marc Hertz, Surendran Mahalingam, Iben Dalum, Steen Klysner, Joerg Mattes, Anne Neisig, Søren Mouritsen, Paul S. Foster, and Anand Gautam

3800 Induction of TCR Vβ-Specific $CD8^+$ CTLs by TCR Vβ-Derived Peptides Bound to HLA-E
Jianfeng Li, Itamar Goldstein, Eva Glickman-Nir, Hong Jiang, and Leonard Chess

3809 Vitamin E-Enhanced IL-2 Production in Old Mice: Naive But Not Memory T Cells Show Increased Cell Division Cycling and IL-2-Producing Capacity
Oskar Adolfsson, Brigitte T. Huber, and Simin Nikbin Meydani

3818 Low-Avidity Self-Specific T Cells Display a Pronounced Expansion Defect That Can Be Overcome by Altered Peptide Ligands
Karin E. de Visser, Tanina A. Cordaro, Helmut W. H. G. Kessels, Felicia H. Tirion, Ton N. M. Schumacher, and Ada M. Kruisbeek

MOLECULAR AND STRUCTURAL IMMUNOLOGY

3829 Developmentally Regulated Changes in Glucosidase II Association with, and Carbohydrate Content of, the Protein Tyrosine Phosphatase CD45
Troy A. Baldwin and Hanne L. Ostergaard

3836 Function and Factor Interactions of a Locus Control Region Element in the Mouse T Cell Receptor-α/Dad1 Gene Locus
Benjamin D. Ortiz, Faith Harrow, Dragana Cado, Buyung Santoso, and Astar Winoto

3846 Conventional and Surrogate Light Chains Differentially Regulate Ig μ and Dμ Heavy Chain Maturation and Surface Expression
Terry Fang, Brendan P. Smith, and Christopher A. J. Roman

3858 A Novel, Nonclassical MHC Class I Molecule Specific to the Common Chimpanzee
Erin J. Adams, Stewart Cooper, and Peter Parham

HOST DEFENSE

3870 Isolated Hypervariable Regions Derived from Streptococcal M Proteins Specifically Bind Human C4b-Binding Protein: Implications for Antigenic Variation
Eva Morfeldt, Karin Berggård, Jenny Persson, Torbjörn Drakenberg, Eskil Johnsson, Erik Lindahl, Sara Linse, and Gunnar Lindahl

3878 Monoclonal Antibodies with Broad Specificity for Hepatitis C Virus Hypervariable Region 1 Variants Can Recognize Viral Particles
Antonella Cerino, Annalisa Meola, Laura Segagni, Milena Furione, Sabrina Marciano, Miriam Triyatni, T. Jake Liang, Alfredo Nicosia, and Mario U. Mondelli

3887 Intestinal Trefoil Factor Induces Decay-Accelerating Factor Expression and Enhances the Protective Activities Against Complement Activation in Intestinal Epithelial Cells
Akira Andoh, Koichi Kinoshita, Ian Rosenberg, and Daniel K. Podolsky

3894 The Murine Cytomegalovirus Immune Evasion Protein m4/gp34 Forms Biochemically Distinct Complexes with Class I MHC at the Cell Surface and in a Pre-Golgi Compartment
Daniel G. Kavanagh, Ulrich H. Koszinowski, and Ann B. Hill

3903 Apoptotic Deletion of Th Cells Specific for the 19-kDa Carboxyl-Terminal Fragment of Merozoite Surface Protein 1 During Malaria Infection
Jiraprapa Wipasa, Huji Xu, Anthony Stowers, and Michael F. Good

3910 Passively Acquired Antibodies Suppress Humoral But Not Cell-Mediated Immunity in Mice Immunized with Live Attenuated Respiratory Syncytial Virus Vaccines
James E. Crowe, Jr., Cai-Yen Firestone, and Brian R. Murphy

3919 Critical Role of Kupffer Cell-Derived IL-10 for Host Defense in Septic Peritonitis
Klaus Emmanuilidis, Heike Weighardt, Stefan Maier, Klaus Gerauer, Tanja Fleischmann, Xin X. Zheng, Wayne W. Hancock, Bernhard Holzmann, and Claus-Dieter Heidecke

3928 HSV and Glycoprotein J Inhibit Caspase Activation and Apoptosis Induced by Granzyme B or Fas
Keith R. Jerome, Zheng Chen, Robin Lang, Monika R. Torres, Joni Hofmeister, Shannon Smith, Richard Fox, Christopher J. Froelich, and Lawrence Corey

3936 Local Costimulation Reinvigorates Tumor-Specific Cytolytic T Lymphocytes for Experimental Therapy in Mice with Large Tumor Burdens
Xue-Feng Bai, Jonathan Bender, Jinqing Liu, Huiming Zhang, Yin Wang, Ou Li, Peishuang Du, Pan Zheng, and Yang Liu

INFLAMMATION

3944 Chronic Inflammation and Protection from Acute Hepatitis in Transgenic Mice Expressing TNF in Endothelial Cells
Antje Willuweit, Gabriele Sass, Annette Schöneberg, Ulrich Eisel, Gisa Tiegs, and Matthias Clauss

3953 Abnormal Migration Phenotype of Mitogen-Activated Protein Kinase-Activated Protein Kinase $2^{-/-}$ Neutrophils in Zigmond Chambers Containing Formyl-Methionyl-Leucyl-Phenylalanine Gradients
Michael O. Hannigan, Lijun Zhan, Youxi Ai, Alexey Kotlyarov, Matthias Gaestel, and Chi-Kuang Huang

3962 Lipopolysaccharide-Induced Increase of Prostaglandin E_2 Is Mediated by Inducible Nitric Oxide Synthase Activation of the Constitutive Cyclooxygenase and Induction of Membrane-Associated Prostaglandin E Synthase
Yvan Devaux, Carole Seguin, Sandrine Grosjean, Nicole de Talancé, Viviane Camaeti, Arlette Burlet, Faiez Zannad, Claude Meistelman, Paul-Michel Mertes, and Dan Longrois

3972 Anaphylatoxin C5a Actions in Rat Liver: Synergistic Enhancement by C5a of Lipopolysaccharide-Dependent α_2-Macroglobulin Gene Expression in Hepatocytes Via IL-6 Release from Kupffer Cells
Claudia Mäck, Kurt Jungermann, Otto Götze, and Henrike L. Schieferdecker

3980 A Novel Long Chain Polyunsaturated Fatty Acid, β-Oxa 21:3*n*-3, Inhibits T Lymphocyte Proliferation, Cytokine Production, Delayed-Type Hypersensitivity, and Carrageenan-Induced Paw Reaction and Selectively Targets Intracellular Signals
Maurizio Costabile, Charles S. T. Hii, Brenton S. Robinson, Deborah A. Rathjen, Michael Pitt, Christopher Easton, Robert C. Miller, Alf Poulos, Andrew W. Murray, and Antonio Ferrante

3988 Potent Inhibition of Neutrophil Migration by Cryptococcal Mannoprotein-4-Induced Desensitization
Frank E. J. Coenjaerts, Annemiek M. E. Walenkamp, Pauline N. Mwinzi, Jelle Scharringa, Huberta A. T. Dekker, Jos A. G. van Strijp, Robert Cherniak, and Andy I. M. Hoepelman

3996 Cross-Linking of Human FcγRIIIb Induces the Production of Granulocyte Colony-Stimulating Factor and Granulocyte-Macrophage Colony-Stimulating Factor by Polymorphonuclear Neutrophils
Véronique Durand, Yves Renaudineau, Jacques-Olivier Pers, Pierre Youinou, and Christophe Jamin

4008 Human Mast Cells Release Metalloproteinase-9 on Contact with Activated T Cells: Juxtacrine Regulation by TNF-α
Dana Baram, Gayle G. Vaday, Pazit Salamon, Ilana Drucker, Rami Hershkoviz, and Yoseph A. Mekori

4017 Immobilized IL-8 Triggers Progressive Activation of Neutrophils Rolling In Vitro on P-Selectin and Intercellular Adhesion Molecule-1
Jeffrey A. DiVietro, McRae J. Smith, Bryan R. E. Smith, Lilli Petruzzelli, Richard S. Larson, and Michael B. Lawrence

4026 Inflammatory Cytokines Regulate Function and Expression of Adenosine A_{2A} Receptors in Human Monocytic THP-1 Cells
Nguyen D. Khoa, M. Carmen Montesinos, Allison B. Reiss, David Delano, Nahel Awadallah, and Bruce N. Cronstein

CLINICAL IMMUNOLOGY

4033 Reconstitution of the Complement Function in C1q-Deficient ($C1qa^{-/-}$) Mice with Wild-Type Bone Marrow Cells
Franz Petry, Marina Botto, Rafaela Holtappels, Mark J. Walport, and Michael Loos

4038 Characterization of Mutations, Including a Novel Regulatory Defect in the First Intron, in Bruton's Tyrosine Kinase Gene from Seven Korean X-Linked Agammaglobulinemia Families
Eun-Kyeong Jo, Hirokazu Kanegane, Shigeaki Nonoyama, Satoshi Tsukada, Jae-Ho Lee, Kyu Lim, Minho Shong, Chang-Hwa Song, Hwa-Jung Kim, Jeong-Kyu Park, and Toshio Miyawaki

4046 Loss of IFN-γ Production by Invariant NK T Cells in Advanced Cancer
Syed Muhammad Ali Tahir, Olivia Cheng, Angela Shaulov, Yasuhiko Koezuka, Glenn J. Bubley, S. Brian Wilson, Steven P. Balk, and Mark A. Exley

4051 Clonal Biases of Peripheral CD8 T Cell Repertoire Directly Reflect Local Inflammation in Polymyositis
Junko Nishio, Mihoko Suzuki, Nobuyuki Miyasaka, and Hitoshi Kohsaka

4059 Soluble CD137 (4-1BB) Ligand Is Released Following Leukocyte Activation and Is Found in Sera of Patients with Hematological Malignancies
Helmut R. Salih, Helga M. Schmetzer, Christine Burke, Gary C. Starling, Robert Dunn, Renate Pelka-Fleischer, Volkmar Nuessler, and Peter A. Kiener

4067 Role of Cyclin Kinase Inhibitor p21 in Systemic Autoimmunity
Marie-Laure Santiago-Raber, Brian R. Lawson, Wolfgang Dummer, Marlene Barnhouse, Stefanos Koundouris, Curtis B. Wilson, Dwight H. Kono, and Argyrios N. Theofilopoulos

4075 IL-10 Improves Skin Disease and Modulates Endothelial Activation and Leukocyte Effector Function in Patients with Psoriatic Arthritis
Iain B. McInnes, Gabor G. Illei, Carol L. Danning, Cheryl H. Yarboro, Marianne Crane, Takashi Kuroiwa, Ryan Schlimgen, Eric Lee, Barbara Foster, Donald Flemming, Calman Prussin, Thomas A. Fleisher, and Dimitrios T. Boumpas

4083 HLA-DR Modulates Autoantibody Repertoire, But Not Mortality, in a Humanized Mouse Model of Systemic Lupus Erythematosus
Tawatchai Paisansinsup, Abbe N. Vallejo, Harvinder Luthra, and Chella S. David

4091 Neutralization of the Chemokine CXCL10 Reduces Inflammatory Cell Invasion and Demyelination and Improves Neurological Function in a Viral Model of Multiple Sclerosis
Michael T. Liu, Hans S. Keirstead, and Thomas E. Lane

4098 Up-Regulation of Fas Ligand Expression by Human Cytomegalovirus Immediate-Early Gene Product 2: A Novel Mechanism in Cytomegalovirus-Induced Apoptosis in Human Retina
Shih-Hwa Chiou, Jorn-Hon Liu, Wen-Ming Hsu, Steve S.-L. Chen, Sui-Yuan Chang, Li-Jung Juan, Jung-Chun Lin, Yu-Ting Yang, Wing-Wai Wong, Cheng-Yi Liu, Young-Sun Lin, Wu-Tse Liu, and Cheng-Wen Wu

4104 IL-12 Administration Reveals Diabetogenic T Cells in Genetically Resistant I-Eα-Transgenic Nonobese Diabetic Mice: Resistance to Autoimmune Diabetes Is Associated with Binding of Eα-Derived Peptides to the $I\text{-}A^{g7}$ Molecule
Sylvie Trembleau, Silvia Gregori, Giuseppe Penna, Irmina Gorny, and Luciano Adorini

4115 Author Index

4120 CIS Membership Application

4121 AAI Trainee Membership Application

VOLUME 167 / Nº 8 / OCTOBER 15, 2001

CUTTING EDGE

4137 Cutting Edge: IL-17F, a Novel Cytokine Selectively Expressed in Activated T Cells and Monocytes, Regulates Angiogenesis and Endothelial Cell Cytokine Production
Trevor Starnes, Michael J. Robertson, George Sledge, Stephanie Kelich, Harikrishna Nakshatri, Hal E. Broxmeyer, and Robert Hromas

4141 Cutting Edge: The Absence of C3 Demonstrates a Role for Complement in Th2 Effector Functions in a Murine Model of Pulmonary Allergy
Scott M. Drouin, David B. Corry, Jens Kildsgaard, and Rick A. Wetsel

CELLULAR IMMUNOLOGY AND IMMUNE REGULATION

4147 Induction of IL-10 and Inhibition of Experimental Arthritis Are Specific Features of Microbial Heat Shock Proteins That Are Absent for Other Evolutionarily Conserved Immunodominant Proteins
Berent J. Prakken, Uwe Wendling, Ruurd van der Zee, Victor P. M. G. Rutten, Wietse Kuis, and Willem van Eden

4154 Persistence of Dominant T Cell Clones in Accepted Solid Organ Transplants
Christophe Baron, Isabel McMorrow, David H. Sachs, and Christian LeGuern

4161 Enhancement of Mast Cell Survival: A Novel Function of Some Secretory Phospholipase A_2 Isotypes
Alfred N. Fonteh, Chad R. Marion, Brooke J. Barham, Michelle B. Edens, Gen-ichi Atsumi, James M. Samet, Kevin P. High, and Floyd H. Chilton

4172 Unique Signaling Properties of B Cell Antigen Receptor in Mature and Immature B Cells: Implications for Tolerance and Activation
Robert J. Benschop, Erin Brandl, Andrew C. Chan, and John C. Cambier

4180 Regulation of NKT Cells by Ly49: Analysis of Primary NKT Cells and Generation of NKT Cell Line
Motoi Maeda, Stefan Lohwasser, Takashi Yamamura, and Fumio Takei

4187 Neonatal Exposure to Antigen Primes the Immune System to Develop Responses in Various Lymphoid Organs and Promotes Bystander Regulation of Diverse T Cell Specificities
Christopher D. Pack, Aimee E. Cestra, Booki Min, Kevin L. Legge, Lequn Li, Jacque C. Caprio-Young, J. Jeremiah Bell, Randal K. Gregg, and Habib Zaghouani

4196 Purification of Ag-Specific T Lymphocytes After Direct Peripheral Blood Mononuclear Cell Stimulation Followed by CD25 Selection. I. Application to $CD4^+$ or $CD8^+$ Cytomegalovirus Phosphoprotein pp65 Epitope Determination
Géraldine Gallot, Régine Vivien, Catherine Ibisch, Jaqueline Lulé, Christian Davrinche, Joëlle Gaschet, and Henri Vié

4207 Peptide Length Variants p2Ca and QL9 Present Distinct Conformations to L^d-Specific T Cells
Tara M. C. Hornell, Shiloh M. Martin, Nancy B. Myers, and Janet M. Connolly

4215 Induction of CTL and Nonpolarized Th Cell Responses by $CD8\alpha^+$ and $CD8\alpha^-$ Dendritic Cells
Géraldine Schlecht, Claude Leclerc, and Gilles Dadaglio

4222 Immunotoxins Containing Recombinant Anti-CTLA-4 Single-Chain Fragment Variable Antibodies and Saporin: In Vitro Results and In Vivo Effects in an Acute Rejection Model
Pier-Luigi Tazzari, Letizia Polito, Andrea Bolognesi, Maria-Pia Pistillo, Paolo Capanni, Giulio Lelio Palmisano, Roberto M. Lemoli, Antonio Curti, Luigi Biancone, Giovanni Camussi, Roberto Conte, Giovanni B. Ferrara, and Fiorenzo Stirpe

4230 Inhibition of the Death Receptor Pathway by cFLIP Confers Partial Engraftment of MHC Class I-Deficient Stem Cells and Reduces Tumor Clearance in Perforin-Deficient Mice
Mesha Austin Taylor, Preet M. Chaudhary, Jennifer Klem, Vinay Kumar, John D. Schatzle, and Michael Bennett

4238 HIV Envelope Protein Inhibits MHC Class I Presentation of a Cytomegalovirus Protective Epitope
Daniel López, Yolanda Samino, Ulrich H. Koszinowski, and Margarita Del Val

4245 Activation of $CD25^+CD4^+$ Regulatory T Cells by Oral Antigen Administration
Xingmin Zhang, Leonid Izikson, Liming Liu, and Howard L. Weiner

4254 Visualization and Characterization of Respiratory Syncytial Virus F-Specific $CD8^+$ T Cells During Experimental Virus Infection
Jun Chang, Anon Srikiatkhachorn, and Thomas J. Braciale

4261 Resting and Activation-Dependent Ion Channels in Human Mast Cells
S. Mark Duffy, Wendy J. Lawley, Edward C. Conley, and Peter Bradding

4271 $CD4^+CD25^+$ T Cells Facilitate the Induction of T Cell Anergy
Joerg Ermann, Veronika Szanya, Gregory S. Ford, Violette Paragas, C. Garrison Fathman, and Kristina Lejon

4276 Hapten Addition to an MHC Class I-Binding Peptide Causes Substantial Adjustments of the TCR Structure of the Responding $CD8^+$ T Cells
Shinichiro Honda, Weijia Zhang, Alexis M. Kalergis, Teresa P. DiLorenzo, Fuming Wang, and Stanley G. Nathenson

4286 Regression of Extensive Pulmonary Metastases in Mice by Adoptive Transfer of Antigen-Specific $CD8^+$ CTL Reactive Against Tumor Cells Expressing a Naturally Occurring Rejection Epitope
Mary Hilburger Ryan, J. Andrew Bristol, Elwood McDuffie, and Scott I. Abrams

4293 A Schistosome-Expressed Immunomodulatory Glycoconjugate Expands Peritoneal $Gr1^+$ Macrophages That Suppress Naive $CD4^+$ T Cell Proliferation Via an IFN-γ and Nitric Oxide-Dependent Mechanism
Olga Atochina, Toby Daly-Engel, Danuta Piskorska, Edward McGuire, and Donald A. Harn

4303 βc Cytokine Receptor-Induced Stimulation of cAMP Response Element Binding Protein Phosphorylation Requires Protein Kinase C In Myeloid Cells: A Novel Cytokine Signal Transduction Cascade
Elaina Gubina, Xu Luo, E. Kwon, Kathleen Sakamoto, Yu Fang Shi, and R. Allan Mufson

4311 CD4 Promotes Breadth in the TCR Repertoire
Qi Wang, Laurent Malherbe, DongJi Zhang, Kurt Zingler, Nicolas Glaichenhaus, and Nigel Killeen

4321 Enhanced Immune Responses in Transgenic Mice Expressing a Truncated Form of the Lymphocyte Semaphorin CD100
Chie Watanabe, Atsushi Kumanogoh, Wei Shi, Kazuhiro Suzuki, Shuichi Yamada, Masaru Okabe, Kanji Yoshida, and Hitoshi Kikutani

4329 Overcoming the Signaling Defect of Lyn-Sequestering, Signal-Curtailing FcεRI Dimers: Aggregated Dimers Can Dissociate from Lyn and Form Signaling Complexes with Syk
Martha Lara, Enrique Ortega, Israel Pecht, Janet R. Pfeiffer, A. Marina Martinez, Rebecca J. Lee, Zurab Surviladze, Bridget S. Wilson, and Janet M. Oliver

4338 Epitope Mapping of the Indirect T Cell Response to Allogeneic Class I MHC: Sequences Shared by Donor and Recipient MHC May Prime T Cells That Provide Help for Alloantibody Production
Emma Lovegrove, Gavin J. Pettigrew, Eleanor M. Bolton, and J. Andrew Bradley

4345 Cytokines Regulate the Capacity of $CD8\alpha^+$ and $CD8\alpha^-$ Dendritic Cells to Prime Th1/Th2 Cells In Vivo
Roberto Maldonado-López, Charlie Maliszewski, Jacques Urbain, and Muriel Moser

4351 Impaired Activation of Islet-Reactive CD4 T Cells in Pancreatic Lymph Nodes of B Cell-Deficient Nonobese Diabetic Mice
Siri Atma W. Greeley, Daniel J. Moore, Hooman Noorchashm, Lauren E. Noto, Susan Y. Rostami, Alexander Schlachterman, Howard K. Song, Brigitte Koeberlein, Clyde F. Barker, and Ali Naji

4358 Spatial Organization of Signal Transduction Molecules in the NK Cell Immune Synapses During MHC Class I-Regulated Noncytolytic and Cytolytic Interactions
Yatin M. Vyas, Kamini M. Mehta, Margaret Morgan, Hina Maniar, Linda Butros, Steffen Jung, Janis K. Burkhardt, and Bo Dupont

4368 Protection from Pulmonary Fibrosis in the Absence of CCR2 Signaling
Bethany B. Moore, Robert Paine III, Paul J. Christensen, Thomas A. Moore, Stephanie Sitterding, Rose Ngan, Carol A. Wilke, William A. Kuziel, and Galen B. Toews

4378 Endothelial Cell Costimulation of T Cell Activation Through CD58-CD2 Interactions Involves Lipid Raft Aggregation
Javier Mestas and Christopher C. W. Hughes

MOLECULAR AND STRUCTURAL IMMUNOLOGY

4386 Rudimentary TCR Signaling Triggers Default IL-10 Secretion by Human Th1 Cells
Gregory G. Burrows, Yuan K. Chou, Chunhe Wang, Justin W. Chang, Thomas P. Finn, Nicole E. Culbertson, Joseph Kim, Dennis N. Bourdette, Deborah A. Lewinsohn, David M. Lewinsohn, Masayuki Ikeda, Tohru Yoshioka, Charles N. Allen, Halina Offner, and Arthur A. Vandenbark

4396 Immunobiological Analysis of TCR Single-Chain Transgenic Mice Reveals New Possibilities for Interaction between CDR3α and an Antigenic Peptide Bound to MHC Class I
Weijia Zhang, Shinichiro Honda, Fuming Wang, Teresa P. DiLorenzo, Alexis M. Kalergis, David A. Ostrov, and Stanley G. Nathenson

4405 CXCR3 Expression on $CD34^+$ Hemopoietic Progenitors Induced by Granulocyte-Macrophage Colony-Stimulating Factor: II. Signaling Pathways Involved
Tan Jinquan, Liu Anting, Henrik H. Jacobi, Christian Glue, Chen Jing, Lars P. Ryder, Hans O. Madsen, Arne Svejgaard, Per S. Skov, Hans-Jørgen Malling, and Lars K. Poulsen

4414 The Cell Type-Specific Expression of the Murine *IL-13* Gene Is Regulated by GATA-3
Hiroko Kishikawa, Jenny Sun, Andrew Choi, Shi-Chuen Miaw, and I-Cheng Ho

4421 Unique Function for Carboxyl-Terminal Domain of Oct-2 in Ig-Secreting Cells
M. Nusrat Sharif, Hanna S. Radomska, David M. Miller, and Laurel A. Eckhardt

4430 Identification of a Novel Cytokine, ML-1, and Its Expression in Subjects with Asthma
Mio Kawaguchi, Luiz F. Onuchic, Xiao-Dong Li, David M. Essayan, John Schroeder, Hui-Qing Xiao, Mark C. Liu, Guha Krishnaswamy, Gregory Germino, and Shau-Ku Huang

4436 IL-10 Inhibits Apoptosis of Promyeloid Cells by Activating Insulin Receptor Substrate-2 and Phosphatidylinositol 3′-Kinase
Jian-Hua Zhou, Suzanne R. Broussard, Klemen Strle, Gregory G. Freund, Rodney W. Johnson, Robert Dantzer, and Keith W. Kelley

4443 A Region of Tapasin That Affects L^d Binding and Assembly
Hēth R. Turnquist, Shanna E. Vargas, Adrian J. Reber, Mary M. McIlhaney, Suling Li, Ping Wang, Sam D. Sanderson, Brigitte Gubler, Peter van Endert, and Joyce C. Solheim

4450 Differential Evolution and Stability of Epitope-Specific $CD8^+$ T Cell Responses in EBV Infection
Michelle D. Catalina, John L. Sullivan, Katherine R. Bak, and Katherine Luzuriaga

4458 Notch-1 Regulates NF-κB Activity in Hemopoietic Progenitor Cells
Pingyan Cheng, Andrew Zlobin, Veronica Volgina, Sridevi Gottipati, Barbara Osborne, Erica J. Simel, Lucio Miele, and Dmitry I. Gabrilovich

4468 Enforced Expression of GATA-3 Severely Reduces Human Thymic Cellularity
Tom Taghon, Magda De Smedt, Frank Stolz, Maggy Cnockaert, Jean Plum, and Georges Leclercq

4476 IL-12, STAT4-Dependent Up-Regulation of $CD4^+$ T Cell Core 2 β-1,6-*n*-Acetylglucosaminyltransferase, an Enzyme Essential for Biosynthesis of P-Selectin Ligands
Yaw-Chyn Lim, Huijuan Xie, Carolyn E. Come, Stephen I. Alexander, Michael J. Grusby, Andrew H. Lichtman, and Francis W. Luscinskas

4485 *TCRA* Gene Rearrangement in Immature Thymocytes in Absence of CD3, Pre-TCR, and TCR Signaling
Stéphane J. C. Mancini, Serge M. Candéias, James P. Di Santo, Pierre Ferrier, Patrice N. Marche, and Evelyne Jouvin-Marche

4494 Chromatin Remodeling, Measured by a Novel Real-Time Polymerase Chain Reaction Assay, Across the Proximal Promoter Region of the *IL-2* Gene
Sudha Rao, Erik Procko, and M. Frances Shannon

4504 An Ancient Lectin-Dependent Complement System in an Ascidian: Novel Lectin Isolated from the Plasma of the Solitary Ascidian, *Halocynthia roretzi*
Hideharu Sekine, Akira Kenjo, Kaoru Azumi, Gota Ohi, Minoru Takahashi, Reiji Kasukawa, Narumi Ichikawa, Munehiro Nakata, Tsuguo Mizuochi, Misao Matsushita, Yuichi Endo, and Teizo Fujita

HOST DEFENSE

4511 IL-2 During In Vitro Priming Promotes Subsequent Engraftment and Successful Adoptive Tumor Immunotherapy by Persistent Memory Phenotypic $CD8^+$ T Cells
Oliver F. Bathe, Nava Dalyot-Herman, and Thomas R. Malek

4518 The Pulmonary Environment Promotes Th2 Cell Responses After Nasal-Pulmonary Immunization with Antigen Alone, but Th1 Responses Are Induced During Instances of Intense Immune Stimulation
Harlan P. Jones, Lisa M. Hodge, Kohtaro Fujihashi, Hiroshi Kiyono, Jerry R. McGhee, and Jerry W. Simecka

4527 Immunoendocrine Interactions During Chronic Cysticercosis Determine Male Mouse Feminization: Role of IL-6
Jorge Morales-Montor, S. Baig, R. Mitchell, K. Deway, C. Hallal-Calleros, and R. T. Damian

4534 *Leishmania amazonensis*-Dendritic Cell Interactions In Vitro and the Priming of Parasite-Specific $CD4^+$ T Cells In Vivo
Hai Qi, Vsevolod Popov, and Lynn Soong

4543 Quantifying the Relationship Between Multiple Immunological Parameters and Host Resistance: Probing the Limits of Reductionism
Deborah Keil, Robert W. Luebke, and Stephen B. Pruett

4553 Phosphatidylinositol 3-Kinase Confers Resistance to Encephalomyocarditis and Herpes Simplex Virus-Induced Cell Death Through the Activation of Distinct Downstream Effectors
Christine Prejean, Tulika Sarma, Oleg Kurnasov, Anna Usacheva, Brian Hemmings, Lewis Cantley, David A. Fruman, Lynda A. Morrison, R. Mark Buller, and Oscar R. Colamonici

4560 A Dual-Function DNA Vaccine Encoding Carcinoembryonic Antigen and CD40 Ligand Trimer Induces T Cell-Mediated Protective Immunity Against Colon Cancer in Carcinoembryonic Antigen-Transgenic Mice
Rong Xiang, F. James Primus, J. Michael Ruehlmann, Andreas G. Niethammer, Steve Silletti, Holger N. Lode, Carrie S. Dolman, Stephen D. Gillies, and Ralph A. Reisfeld

4566 Distinct CD8 T Cell Functions Mediate Susceptibility to Histoplasmosis During Chronic Viral Infection
Betty A. Wu-Hsieh, Jason K. Whitmire, Rici de Fries, Jr-Shiuan Lin, Mehrdad Matloubian, and Rafi Ahmed

4574 Acute Toxoplasmosis Leads to Lethal Overproduction of Th1 Cytokines
Dana G. Mordue, Fernando Monroy, Marie La Regina, Charles A. Dinarello, and L. David Sibley

4585 Lack of CCR2 Results in Increased Mortality and Impaired Leukocyte Activation and Trafficking Following Infection of the Central Nervous System with a Neurotropic Coronavirus
Benjamin P. Chen, William A. Kuziel, and Thomas E. Lane

INFLAMMATION

4593 High-Dose Leptin Activates Human Leukocytes Via Receptor Expression on Monocytes
Hamid Zarkesh-Esfahani, Graham Pockley, Russell A. Metcalfe, Martin Bidlingmaier, Zida Wu, Abolghasem Ajami, Anthony P.Weetman, Christian J. Strasburger, Richard J. M. Ross

4600 Induction of Hypoxia-Inducible Factor-1α and Activation of Caspase-3 in Hypoxia-Reoxygenated Bone Marrow Stroma Is Negatively Regulated by the Delayed Production of Substance P
Jing Qian, Kavita Ramroop, Alnela McLeod, Persis Bandari, David H. Livingston, Jonathan S. Harrison, and Pranela Rameshwar

4609 The Functional Role of Rho and Rho-Associated Coiled-Coil Forming Protein Kinase in Eotaxin Signaling of Eosinophils
Tetsuya Adachi, Randi Vita, Satoshi Sannohe, Susan Stafford, Rafeul Alam, Hiroyuki Kayaba, and Junichi Chihara

4616 Intracisternally Localized Bacterial DNA Containing CpG Motifs Induces Meningitis
Guo-Min Deng, Zai-Qing Liu, and Andrej Tarkowski

4627 Cockroach Allergen-Induced Eosinophilic Airway Inflammation in HLA-DQ/Human $CD4^+$ Transgenic Mice
Bettina G. Papouchado, Svetlana P. Chapoval, Eric V. Marietta, Catherine R. Weiler, and Chella S. David

4635 Constitutive Expression of Macrophage-Inflammatory Protein 2 (MIP-2) mRNA in Bone Marrow Gives Rise to Peripheral Neutrophils with Preformed MIP-2 Protein
Sigrid P. Matzer, Tobias Baumann, Nicholas W. Lukacs, Martin Röllinghoff, and H. Ulrich Beuscher

4644 Meningeal and Perivascular Macrophages of the Central Nervous System Play a Protective Role During Bacterial Meningitis
Machteld M. J. Polfliet, Petra J. G. Zwijnenburg, A. Marceline van Furth, Tom van der Poll, Ed A. Döpp, Chantal Renardel de Lavalette, Esther M. L. van Kesteren-Hendrikx, Nico van Rooijen, Christien D. Dijkstra, and Timo K. van den Berg

4651 Contribution of Anaphylatoxin C5a to Late Airway Responses After Repeated Exposure of Antigen to Allergic Rats
Masayoshi Abe, Kazuhiko Shibata, Hiroyasu Akatsu, Naomi Shimizu, Noriyuki Sakata, Takeshi Katsuragi, and Hidechika Okada

4661 Production of Colony-Stimulating Factors and IL-5 by Organs from Three Types of Mice with Inflammatory Disease Due to Loss of the Suppressor of Cytokine Signaling-1
Donald Metcalf, Warren S. Alexander, Philip J. Ryan, Sandra Mifsud, and Ladina Di Rago

4668 Critical Role for IL-13 in the Development of Allergen-Induced Airway Hyperreactivity
David M. Walter, Jennifer J. McIntire, Gerald Berry, Andrew N. J. McKenzie, Debra D. Donaldson, Rosemarie H. DeKruyff, and Dale T. Umetsu

4676 Adenosine-Dependent Airway Inflammation and Hyperresponsiveness in Partially Adenosine Deaminase-Deficient Mice
Janci L. Chunn, Hays W. J. Young, Suman K. Banerjee, Giuseppe N. Colasurdo, and Michael R. Blackburn

CLINICAL IMMUNOLOGY

4686 AMD3100, a Potent and Specific Antagonist of the Stromal Cell-Derived Factor-1 Chemokine Receptor CXCR4, Inhibits Autoimmune Joint Inflammation in IFN-γ Receptor-Deficient Mice
Patrick Matthys, Sigrid Hatse, Kurt Vermeire, Anja Wuyts, Gary Bridger, Geoffrey W. Henson, Erik De Clercq, Alfons Billiau, and Dominique Schols

4693 Mature Dendritic Cells Infiltrate the T Cell-Rich Region of Oral Mucosa in Chronic Periodontitis: In Situ, In Vivo, and In Vitro Studies
Ravi Jotwani, Anna Karolina Palucka, Montasr Al-Quotub, Mahyar Nouri-Shirazi, Jay Kim, Diana Bell, Jacques Banchereau, and Christopher W. Cutler

4701 Overexpression of the Wiskott-Aldrich Syndrome Protein N-Terminal Domain in Transgenic Mice Inhibits T Cell Proliferative Responses Via TCR Signaling Without Affecting Cytoskeletal Rearrangements
Mitsuru Sato, Noriko M. Tsuji, Hideo Gotoh, Keizo Yamashita, Koichi Hashimoto, Noriko Tadotsu, Harumichi Yamanaka, Kenji Sekikawa, and Yasuhiro Hashimoto

4710 T Cell Activation in Rheumatoid Synovium Is B Cell Dependent
Seisuke Takemura, Piotr A. Klimiuk, Andrea Braun, Jörg J. Goronzy, and Cornelia M. Weyand

4719 Apoptosis-Inducing Human-Origin Fcε-Bak Chimeric Proteins for Targeted Elimination of Mast Cells and Basophils: A New Approach for Allergy Treatment
Ruth Belostotsky and Haya Lorberboum-Galski

4729 Unique T Cell Effector Functions Elicited by *Plasmodium falciparum* Epitopes in Malaria-Exposed Africans Tested by Three T Cell Assays
Katie L. Flanagan, Edwin A. M. Lee, Michael B. Gravenor, William H. H. Reece, Britta C. Urban, Thomas Doherty, Kalifa A. Bojang, Margaret Pinder, Adrian V. S. Hill, and Magdalena Plebanski

4738 Identification of HLA-B27-Restricted Peptides from the *Chlamydia trachomatis* Proteome with Possible Relevance to HLA-B27-Associated Diseases
Wolfgang Kuon, Hermann-Georg Holzhütter, Heiner Appel, Martina Grolms, Simon Kollnberger, Alexander Traeder, Peter Henklein, Elisabeth Weiss, Andreas Thiel, Roland Lauster, Paul Bowness, Andreas Radbruch, Peter-Michael Kloetzel, and Joachim Sieper

4747 A Possible Role for CXCR4 and Its Ligand, the CXC Chemokine Stromal Cell-Derived Factor-1, in the Development of Bone Marrow Metastases in Neuroblastoma
Hila Geminder, Orit Sagi-Assif, Lilach Goldberg, Tsipi Meshel, Gideon Rechavi, Isaac P. Witz, and Adit Ben-Baruch

4758 Retrovirally Transduced Human Dendritic Cells Can Generate T Cells Recognizing Multiple MHC Class I and Class II Epitopes from the Melanoma Antigen Glycoprotein 100
Réjean Lapointe, Richard E. Royal, Mark E. Reeves, Ivy Altomare, Paul F. Robbins, and Patrick Hwu

4765 Secondhand Smoke Induces Allergic Sensitization in Mice
Robert Rumold, Minna Jyrala, and David Diaz-Sanchez

4771 Corrections

4772 Author index

4775 AAI Membership Application

4776 AAI Trainee Membership Application

VOLUME 167 / Nº 9 / NOVEMBER 1, 2001

CUTTING EDGE

4791 Cutting Edge: CCR4 Mediates Antigen-Primed T Cell Binding to Activated Dendritic Cells
Meng-tse Wu, Hui Fang, and Sam T. Hwang

4796 Cutting Edge: Membrane Lymphotoxin Regulates $CD8^+$ T Cell-Mediated Intestinal Allograft Rejection
Zhong Guo, Jun Wang, Lingzhong Meng, Qiang Wu, Oliver Kim, John Hart, Gang He, Ping Zhou, J. Richard Thistlethwaite, Jr., Maria-Luisa Alegre, Yang-Xin Fu, and Kenneth A. Newell

4801 Cutting Edge: Neosynthesis Is Required for the Presentation of a T Cell Epitope from a Long-Lived Viral Protein
Selina Khan, Rita de Giuli, Gunter Schmidtke, Michael Bruns, Michael Buchmeier, Maries van den Broek, and Marcus Groettrup

CELLULAR IMMUNOLOGY AND IMMUNE REGULATION

4805 Activation of $\beta\gamma$ Subunits of G_{i2} and G_{i3} Proteins by Basic Secretagogues Induces Exocytosis Through Phospholipase $C\beta$ and Arachidonate Release Through Phospholipase $C\gamma$ in Mast Cells
Xavier Ferry, Virginie Eichwald, Laurent Daeffler, and Yves Landry

4814 T Cell Subsets and In Vitro Immune Regulation in "Infectious" Transplantation Tolerance
Yuan Zhai, Xiu-Da Shen, Manfred Lehmann, Ronald Busuttil, Hans-Dieter Volk, and Jerzy W. Kupiec-Weglinski

4821 Murine Renal Allografts: Spontaneous Acceptance Is Associated with Regulated T Cell-Mediated Immunity
Alice A. Bickerstaff, Jiao-Jing Wang, Ronald P. Pelletier, and Charles G. Orosz

4828 Bryostatin-1 and IL-2 Synergize to Induce IFN-γ Expression in Human Peripheral Blood T Cells: Implications for Cancer Immunotherapy
Rafael E. Curiel, Carmen S. Garcia, Lubna Farooq, Martin F. Aguero, and Igor Espinoza-Delgado

4838 Viral Infections Induce Abundant Numbers of Senescent CD8 T Cells
David Voehringer, Claudine Blaser, Pierre Brawand, David H. Raulet, Thomas Hanke, and Hanspeter Pircher

4844 Primary Tumor Tissue Lysates Are Enriched in Heat Shock Proteins and Induce the Maturation of Human Dendritic Cells
Selin Somersan, Marie Larsson, Jean Francois Fonteneau, Sreyashi Basu, Pramod Srivastava, and Nina Bhardwaj

4853 Immune Responses to the HLA-A0201-Restricted Epitopes of Tyrosinase and Glycoprotein 100 Enable Control of Melanoma Outgrowth in HLA-A0201-Transgenic Mice
David W. Mullins, Timothy N. J. Bullock, Teresa A. Colella, Valentina V. Robila, and Victor H. Engelhard

4861 Staining of Celiac Disease-Relevant T Cells by Peptide-DQ2 Multimers
Hanne Quarsten, Stephen N. McAdam, Tore Jensen, Helene Arentz-Hansen, Øyvind Molberg, Knut E. A. Lundin, and Ludvig M. Sollid

4869 Stability of Surface $H\text{-}2K^b$, $H\text{-}2D^b$, and Peptide-Receptive $H\text{-}2K^b$ on Splenocytes
Ruey-Chyi Su and Richard G. Miller

4878 Divergent Therapeutic and Immunologic Effects of Oligodeoxynucleotides with Distinct CpG Motifs
Zuhair K. Ballas, Arthur M. Krieg, Thomas Warren, Wendy Rasmussen, Heather L. Davis, Marinella Waldschmidt, and George J. Weiner

4887 Expression of the Ryanodine Receptor Isoforms in Immune Cells
Eiji Hosoi, Chiharu Nishizaki, Kathleen L. Gallagher, Hadley W. Wyre, Yoshinobu Matsuo, and Yoshitatsu Sei

4895 Melphalan-Induced Expression of IFN-β in MOPC-315 Tumor-Bearing Mice and Its Importance for the Up-Regulation of TNF-α Expression
Vladimir M. Jovasevic and Margalit B. Mokyr

4902 Broad Distribution of Colony-Forming Cells with Erythroid, Myeloid, Dendritic Cell, and NK Cell Potential Among $CD34^{++}$ Fetal Liver Cells
Marcus O. Muench and Alicia Bárcena

4910 Bryostatin-1 Specifically Inhibits In Vitro IgE Synthesis
Dania Rabah, Steve Grant, Check Ma, and Daniel H. Conrad

4919 Phosphorylation by the Protein Kinase CK2 Promotes Calpain-Mediated Degradation of IκBα
Jian Shen, Padmalatha Channavajhala, David C. Seldin, and Gail E. Sonenshein

4926 Evidence That a Peptide Spanning the B-C Junction of Proinsulin Is an Early Autoantigen Epitope in the Pathogenesis of Type 1 Diabetes
Wei Chen, Isabelle Bergerot, John F. Elliott, Leonard C. Harrison, Norio Abiru, George S. Eisenbarth, and Terry L. Delovitch

4936 CTLA-4 Is Not Required for Induction of $CD8^+$ T Cell Anergy In Vivo
Kenneth A. Frauwirth, Maria-Luisa Alegre, and Craig B. Thompson

4942 Extracellular Nicotinamide Adenine Dinucleotide Induces T Cell Apoptosis In Vivo and In Vitro
Zhang-Xu Liu, Olga Azhipa, Shigefumi Okamoto, Sugantha Govindarajan, and Gunther Dennert

4948 c-Rel Is Required for the Protection of B Cells from Antigen Receptor-Mediated, But Not Fas-Mediated, Apoptosis
Alexander M. Owyang, Joseph R. Tumang, Brian R. Schram, Constance Y. Hsia, Timothy W. Behrens, Thomas L. Rothstein, and Hsiou-Chi Liou

4957 Overexpression of AML1 Transcription Factor Drives Thymocytes into the CD8 Single-Positive Lineage
Keitaro Hayashi, Natsumi Abe, Toshio Watanabe, Masuo Obinata, Mamoru Ito, Takehito Sato, Sonoko Habu, and Masanobu Satake

4966 Duration and Strength of Extracellular Signal-Regulated Kinase Signals Are Altered During Positive Versus Negative Thymocyte Selection
Sanjeev Mariathasan, Arsen Zakarian, Denis Bouchard, Alison M. Michie, Juan Carlos Zúñiga-Pflücker, and Pamela S. Ohashi

4974 1α,25-Dihydroxyvitamin D3 Has a Direct Effect on Naive $CD4^+$ T Cells to Enhance the Development of Th2 Cells
André Boonstra, Franck J. Barrat, Chad Crain, Victoria L. Heath, Huub F. J. Savelkoul, and Anne O'Garra

4981 Preferential Blockade of $CD8^+$ T Cell Responses by Administration of Anti-CD137 Ligand Monoclonal Antibody Results in Differential Effect on Development of Murine Acute and Chronic Graft-Versus-Host Diseases
Kazuhisa Nozawa, Junko Ohata, Jinkyo Sakurai, Hiroshi Hashimoto, Hiroaki Miyajima, Hideo Yagita, Ko Okumura, and Miyuki Azuma

4987 Characterization of Virus-Mediated Inhibition of Mixed Chimerism and Allospecific Tolerance
Matthew A. Williams, Joyce T. Tan, Andrew B. Adams, Megan M. Durham, Nozomu Shirasugi, Jason K. Whitmire, Laurie E. Harrington, Rafi Ahmed, Thomas C. Pearson, and Christian P. Larsen

4996 Clonally Diverse CTL Response to a Dominant Viral Epitope Recognizes Potential Epitope Variants
William A. Charini, Marcelo J. Kuroda, Jörn E. Schmitz, Kristin R. Beaudry, Wenyu Lin, Michelle A. Lifton, Georgia R. Krivulka, Antje Necker, and Norman L. Letvin

5004 Microglial Phagocytosis of Apoptotic Inflammatory T Cells Leads to Down-Regulation of Microglial Immune Activation
Tim Magnus, Andrew Chan, Oliver Grauer, Klaus V. Toyka, and Ralf Gold

5011 Lipopolysaccharide-Stimulated or Granulocyte-Macrophage Colony-Stimulating Factor-Stimulated Monocytes Rapidly Express Biologically Active IL-15 on Their Cell Surface Independent of New Protein Synthesis
Graham G. Neely, Stephen M. Robbins, Ernest K. Amankwah, Slava Epelman, Howard Wong, Jason C. L. Spurrell, Kiran K. Jandu, Weibin Zhu, Darin K. Fogg, Christopher B. Brown, and Christopher H. Mody

5018 Essential Role of Stat5 for IL-5-Dependent IgH Switch Recombination in Mouse B Cells
Keisuke Horikawa, Hiroaki Kaku, Hiroshi Nakajima, Helen W. Davey, Lothar Henninghausen, Itsuo Iwamoto, Tokutaro Yasue, Ai Kariyone, and Kiyoshi Takatsu

5027 Dendritic Cell-Derived IL-12 Is Not Required for the Generation of Cytotoxic, IFN-γ-Secreting, $CD8^+$ CTL In Vivo
Yonghong Wan, Lingmin Lu, Jonathan L. Bramson, Stefan Baral, Qing Zhu, Andrew Pilon, and Kelley Dayball

5034 Embryonic Thymic Epithelium Naturally Devoid of APCs Is Acutely Rejected in the Absence of Indirect Recognition
Ricardo Pimenta-Araujo, Laurent Mascarell, Michèle Huesca, Ana Cumano, and Antonio Bandeira

5042 $CD8^+$ Tumor-Infiltrating T Cells Are Deficient in Perforin-Mediated Cytolytic Activity Due to Defective Microtubule-Organizing Center Mobilization and Lytic Granule Exocytosis
Sasa Radoja, Masanao Saio, David Schaer, Mythili Koneru, Stanislav Vukmanovic, and Alan B. Frey

5052 Mannose Receptor Ligand-Positive Cells Express the Metalloprotease Decysin in the B Cell Follicle
Chris G. F. Mueller, Isabelle Cremer, Pierre E. Paulet, Shumpei Niida, Norihiko Maeda, Serge Lebeque, Wolf H. Fridman, and Catherine Sautès-Fridman

5061 Caspase 8 Activity in Membrane Blebs After Anti-Fas Ligation
Beverly Z. Packard, Akira Komoriya, Tilmann M. Brotz, and Pierre A. Henkart

5067 Lipopolysaccharides from Distinct Pathogens Induce Different Classes of Immune Responses In Vivo
Bali Pulendran, Padmasini Kumar, Christopher W. Cutler, Mansour Mohamadzadeh, Thomas Van Dyke, and Jacques Banchereau

5077 Identification of Tumor-Infiltrating Macrophages as the Killers of Tumor Cells After Immunization in a Rat Model System
Bernard Bonnotte, Nicolas Larmonier, Nathalie Favre, Annie Fromentin, Monique Moutet, Monique Martin, Sandeep Gurbuxani, Eric Solary, Bruno Chauffert, and François Martin

5084 C57BL/6 and BALB/c Bronchoalveolar Macrophages Respond Differently to Exercise
Shu-Hui Su, Hsiun-ing Chen, and Chauying J. Jen

5092 Targeting of Tumor Cells for Human γδ T Cells by Nonpeptide Antigens
Yu Kato, Yoshimasa Tanaka, Fumi Miyagawa, Seiji Yamashita, and Nagahiro Minato

5099 The Critical Role of LIGHT, a TNF Family Member, in T Cell Development
Jing Wang, Taehoon Chun, James C. Lo, Qiang Wu, Yang Wang, Amy Foster, Karin Roca, Min Chen, Koji Tamada, Lieping Chen, Chyung-Ru Wang, and Yang-Xin Fu

MOLECULAR AND STRUCTURAL IMMUNOLOGY

5106 Differential Developmental Regulation and Functional Effects on Pre-TCR Surface Expression of Human $pT\alpha^a$ and $pT\alpha^b$ Spliced Isoforms
Almudena R. Ramiro, María N. Navarro, Aura Carreira, Yolanda R. Carrasco, Virginia G. de Yébenes, Graciela Carrillo, José L. San Millán, Bent Rubin, and María L. Toribio

5115 PGRL Is a Major CD81-Associated Protein on Lymphocytes and Distinguishes a New Family of Cell Surface Proteins
Krista L. Clark, Zhihong Zeng, Amy L. Langford, Starla M. Bowen, and Scott C. Todd

5122 Genomic Characterization of *LIGHT* Reveals Linkage to an Immune Response Locus on Chromosome 19p13.3 and Distinct Isoforms Generated by Alternate Splicing or Proteolysis
Steve W. Granger, Kris D. Butrovich, Pantea Houshmand, Wilson R. Edwards, and Carl F. Ware

5129 Structural Analysis of Mutants of High-Affinity and Low-Affinity *p*-Azophenylarsonate-Specific Antibodies Generated by Alanine Scanning of Heavy Chain Complementarity-Determining Region 2
Behnaz Parhami-Seren, Malini Viswanathan, Roland K. Strong, and Michael N. Margolies

5136 The Initiation of B Cell Clonal Expansion Occurs Independently of Pre-B Cell Receptor Formation
Gregory H. Kline, Tracy A. Hayden, and Patricia Riegert

5143 Efficient Chromosomal Mapping of a Methylcholanthrene-Induced Tumor Antigen by CTL Immunoselection
Shreeram Akilesh, Mark E. Dudley, Peter A. Eden, and Derry C. Roopenian

5150 Transcriptional Suppression of Matrix Metalloproteinase-9 Gene Expression by IFN-γ and IFN-β: Critical Role of STAT-1α
Zhendong Ma, Hongwei Qin, and Etty N. Benveniste

5160 Loss of PU.1 Expression Following Inhibition of Histone Deacetylases
R. Nicholas Laribee and Michael J. Klemsz

5167 Transmembrane Domain-Mediated Colocalization of HLA-DM and HLA-DR Is Required for Optimal HLA-DM Catalytic Activity
Dominique A. Weber, Chinh T. Dao, Julie Jun, Jerrod L. Wigal, and Peter E. Jensen

5175 The MHC-Specific Enhanceosome and Its Role in MHC Class I and β_2-Microglobulin Gene Transactivation
Sam J. P. Gobin, Marlijn van Zutphen, Sandy D. Westerheide, Jeremy M. Boss, and Peter J. van den Elsen

5185 The J Chain Is Essential for Polymeric Ig Receptor-Mediated Epithelial Transport of IgA
Finn-Eirik Johansen, Ranveig Braathen, and Per Brandtzaeg

5193 Molecular Mechanisms of IL-2 Gene Regulation Following Costimulation Through LFA-1
Clara Abraham and Jim Miller

5202 The Role of the Individual Domains in the Structure and Function of the Catalytic Region of a Modular Serine Protease, C1r
József Kardos, Péter Gál, László Szilágyi, Nicole M. Thielens, Katalin Szilágyi, Zsolt Lőrincz, Péter Kulcsár, László Gráf, Gérard J. Arlaud, and Péter Závodszky

HOST DEFENSE

5209 The Vesicular Stomatitis Virus Matrix Protein Inhibits Glycoprotein 130-Dependent STAT Activation
Lara Terstegen, Petros Gatsios, Stephan Ludwig, Stephan Pleschka, Willi Jahnen-Dechent, Peter C. Heinrich, and Lutz Graeve

5217 Direct Ex Vivo Analysis of Antigen-Specific IFN-γ-Secreting CD4 T Cells in *Mycobacterium tuberculosis*-Infected Individuals: Associations with Clinical Disease State and Effect of Treatment
Ansar A. Pathan, Katalin A. Wilkinson, Paul Klenerman, Helen McShane, Robert N. Davidson, Geoffrey Pasvol, Adrian V. S. Hill, and Ajit Lalvani

5226 Sandfly Maxadilan Exacerbates Infection with *Leishmania major* and Vaccinating Against It Protects Against *L. major* Infection
Robin V. Morris, Charles B. Shoemaker, John R. David, Gregory C. Lanzaro, and Richard G. Titus

5231 *Escherichia coli* Braun Lipoprotein Induces a Lipopolysaccharide-Like Endotoxic Response from Primary Human Endothelial Cells
Paul O. Neilsen, Guy A. Zimmerman, and Thomas M. McIntyre

5240 TNF-α Compensates for the Impaired Host Defense of IL-1 Type I Receptor-Deficient Mice During Pneumococcal Pneumonia
Anita W. Rijneveld, Sandrine Florquin, Judith Branger, Peter Speelman, Sander J. H. Van Deventer, and Tom van der Poll

5247 NK- and CD8$^+$ T Cell-Mediated Eradication of Established Tumors by Peritumoral Injection of CpG-Containing Oligodeoxynucleotides
You Kawarada, Ruth Ganss, Natalio Garbi, Torsten Sacher, Bernd Arnold, and Günter J. Hämmerling

5254 Antibody Is Required for Clearance of Infectious Murine Hepatitis Virus A59 from the Central Nervous System, But Not the Liver
Amy E. Matthews, Susan R. Weiss, Mark J. Shlomchik, Lynn G. Hannum, James L. Gombold, and Yvonne Paterson

5264 Hepatitis C Virus Core Protein Inhibits Human T Lymphocyte Responses by a Complement-Dependent Regulatory Pathway
Zhi Qiang Yao, Duong Tony Nguyen, Apostolos I. Hiotellis, and Young S. Hahn

5273 Immunization of Mice Against West Nile Virus with Recombinant Envelope Protein
Tian Wang, John F. Anderson, Louis A. Magnarelli, Susan J. Wong, Raymond A. Koski, and Erol Fikrig

5278 Differential Induction of Endotoxin Tolerance by Lipopolysaccharides Derived from *Porphyromonas gingivalis* and *Escherichia coli*
Michael Martin, Jannet Katz, Stefanie N. Vogel, and Suzanne M. Michalek

5286 Analysis of In Situ NK Cell Responses During Viral Infection
Ayotunde O. Dokun, Dortha T. Chu, Liping Yang, Albert S. Bendelac, and Wayne M. Yokoyama

5294 The Schistosome Oligosaccharide Lacto-*N*-neotetraose Expands Gr1$^+$ Cells That Secrete Anti-inflammatory Cytokines and Inhibit Proliferation of Naive CD4$^+$ Cells: A Potential Mechanism for Immune Polarization in Helminth Infections
Luis I. Terrazas, Kristen L. Walsh, Danuta Piskorska, Edward McGuire, and Donald A. Harn, Jr.

5304 IL-12p40-Dependent Agonistic Effects on the Development of Protective Innate and Adaptive Immunity Against *Salmonella* Enteritidis
Jörg Lehmann, Steffi Bellmann, Christoph Werner, Regina Schröder, Nicole Schütze, and Gottfried Alber

5316 IL-1 Plays a Critical Role in Oral, But Not Dermal, Wound Healing
Dana T. Graves, Nasser Nooh, Thomas Gillen, Michael Davey, Shilpa Patel, David Cottrell, and Salomon Amar

5321 Intact Intestinal mRNAs and Intestinal Epithelial Cell Esterase, But Not *Cryptosporidium parvum*, Reach Mesenteric Lymph Nodes of Infected Mice
Esther M. Ponnuraj and Anthony R. Hayward

INFLAMMATION

5329 Novel Anti-inflammatory Effects of the Inhaled Corticosteroid Fluticasone Propionate During Lung Myofibroblastic Differentiation
Eric Cazes, Julien Giron-Michel, Soria Baouz, Christelle Doucet, Francesca Cagnoni, Susanna Oddera, Marie Körner, Gorana Dasic, Renato Testi, Bruno Azzarone, and Giorgio Walter Canonica

5338 A Proinflammatory Role of IL-18 in the Development of Spontaneous Autoimmune Disease
Ehsanollah Esfandiari, Iain B. McInnes, George Lindop, Fang-Ping Huang, Max Field, Mousa Komai-Koma, Xiao-qing Wei, and Foo Y. Liew

5348 A *Brugia malayi* Homolog of Macrophage Migration Inhibitory Factor Reveals an Important Link Between Macrophages and Eosinophil Recruitment During Nematode Infection
Franco H. Falcone, P'ng Loke, Xingxing Zang, Andrew S. MacDonald, Rick M. Maizels, and Judith E. Allen

5355 Loss of Pentameric Symmetry of C-Reactive Protein Is Associated with Promotion of Neutrophil-Endothelial Cell Adhesion
Christine Zouki, Barbara Haas, John S. D. Chan, Lawrence A. Potempa, and János G. Filep

5362 Monocyte-Fibronectin Interactions, Via $\alpha_5\beta_1$ Integrin, Induce Expression of CXC Chemokine-Dependent Angiogenic Activity
Eric S. White, Donna L. Livant, Sonja Markwart, and Douglas A. Arenberg

5367 Role of Sulfation in CD44-Mediated Hyaluronan Binding Induced by Inflammatory Mediators in Human CD14$^+$ Peripheral Blood Monocytes
Kelly L. Brown, Arpita Maiti, and Pauline Johnson

5375 Novel Small Molecule Inhibitor of C1s Exerts Cardioprotective Effects in Ischemia-Reperfusion Injury in Rabbits
Michael Buerke, Hansjörg Schwertz, Werner Seitz, Jürgen Meyer, and Harald Darius

CLINICAL IMMUNOLOGY

5381 Chemokines Regulate IL-6 and IL-8 Production by Fibroblast-Like Synoviocytes from Patients with Rheumatoid Arthritis
Toshihiro Nanki, Kenji Nagasaka, Kenji Hayashida, Yuji Saita, and Nobuyuki Miyasaka

5386 Cytokine Requirements for Induction of Systemic and Mucosal CTL After Nasal Immunization
Herman F. Staats, Curtis P. Bradney, William M. Gwinn, Shawn S. Jackson, Gregory D. Sempowski, Hua-Xin Liao, Norman L. Letvin, and Barton F. Haynes

5395 Cross-Talk Between IL-1 and IL-6 Signaling Pathways in Rheumatoid Arthritis Synovial Fibroblasts
David Deon, Simi Ahmed, Katy Tai, Nicholas Scaletta, Carmen Herrero, In-Hong Lee, Anja Krause, and Lionel B. Ivashkiv

5404 Resistance to Fas-Mediated Apoptosis in EBV-Infected B Cell Lymphomas Is Due to Defects in the Proximal Fas Signaling Pathway
Andrew L. Snow, Linda J. Chen, Ronald R. Nepomuceno, Sheri M. Krams, Carlos O. Esquivel, and Olivia M. Martinez

5412 Diversity of the Human Allergen-Specific T Cell Repertoire Associated with Distinct Skin Test Reactions: Delayed-Type Hypersensitivity-Associated Major Epitopes Induce Th1- and Th2-Dominated Responses
Judith A. Woodfolk and Thomas A. E. Platts-Mills

5420 Antigen Processing Defects in Cervical Carcinomas Limit the Presentation of a CTL Epitope from Human Papillomavirus 16 E6
Mererid Evans, Leszek K. Borysiewicz, Alan S. Evans, Martin Rowe, Matthew Jones, Uzi Gileadi, Vincenzo Cerundolo, and Stephen Man

5429 Highly Activated CD8$^+$ T Cells in the Brain Correlate with Early Central Nervous System Dysfunction in Simian Immunodeficiency Virus Infection
Maria Cecilia Garibaldi Marcondes, E. M. E. Burudi, Salvador Huitron-Resendiz, Manuel Sanchez-Alavez, Debbie Watry, Michelle Zandonatti, Steven J. Henriksen, and Howard S. Fox

5439 Dominant Autoimmune Epitopes Recognized by Pemphigus Antibodies Map to the N-Terminal Adhesive Region of Desmogleins
Maiko Sekiguchi, Yuko Futei, Yoshiko Fujii, Toshiro Iwasaki, Takeji Nishikawa, and Masayuki Amagai

5449 Autoantibodies to the Amino-Terminal Fragment of β-Fodrin Expressed in Glandular Epithelial Cells in Patients with Sjögren's Syndrome
Masataka Kuwana, Tetsuroh Okano, Yoko Ogawa, Junichi Kaburaki, and Yutaka Kawakami

5457 Donor IFN-γ Receptors Are Critical for Acute CD4$^+$ T Cell-Mediated Cardiac Allograft Rejection
Alexander C. Wiseman, Biagio A. Pietra, Brian P. Kelly, Gina R. Rayat, Mona Rizeq, and Ronald G. Gill

5464 Dual Role of the IL-12/IFN-γ Axis in the Development of Autoimmune Myocarditis: Induction by IL-12 and Protection by IFN-γ
Urs Eriksson, Michael O. Kurrer, Wolfgang Sebald, Frank Brombacher, and Manfred Kopf

5470 Molecular and Immunological Characterization of Arginine Kinase from the Indianmeal Moth, *Plodia interpunctella*, a Novel Cross-Reactive Invertebrate Pan-Allergen
Marina Binder, Vera Mahler, Brigitte Hayek, Wolfgang R. Sperr, Matthias Schöller, Sabine Prozell, Gerhard Wiedermann, Peter Valent, Rudolf Valenta, and Michael Duchêne

5478 Transplacental Genetic Immunization After Intravenous Delivery of Plasmid DNA to Pregnant Mice
Kenji Okuda, Ke-Qin Xin, Atsushi Haruki, Susumu Kawamoto, Yoshitsugu Kojima, Fumiki Hirahara, Hidechika Okada, Dennis Klinman, and Kenji Hamajima

5485 Induction of Type 1 Immune Pathology in the Brain Following Immunization Without Central Nervous System Autoantigen in Transgenic Mice With Astrocyte-Targeted Expression of IL-12
Silke Lassmann, Carrie Kincaid, Valérie C. Asensio, and Iain L. Campbell

5494 Author Index

5497 AAI Membership Application

5498 AAI Trainee Membership Application

VOLUME 167 / Nº 10 / NOVEMBER 15, 2001

CUTTING EDGE

5517 Cutting Edge: Activation of NK Cell-Mediated Cytotoxicity by a SAP-Independent Receptor of the CD2 Family
Axel Bouchon, Marina Cella, Helen L. Grierson, Jeffrey I. Cohen, and Marco Colonna

5522 Cutting Edge: Recipient MHC Class II Expression Is Required to Achieve Long-Term Survival of Murine Cardiac Allografts After Costimulatory Blockade
Akira Yamada, Anil Chandraker, Terri M. Laufer, Andrea J. Gerth, Mohamed H. Sayegh, and Hugh Auchincloss, Jr.

5527 Cutting Edge: NKG2D Receptors Induced by IL-15 Costimulate CD28-Negative Effector CTL in the Tissue Microenvironment
Arthur I. Roberts, Leanne Lee, Eliezer Schwarz, Veronika Groh, Thomas Spies, Ellen C. Ebert, and Bana Jabri

5531 Cutting Edge: A Major Fraction of Human Bone Marrow Lymphocytes Are Th2-Like CD1d-Reactive T Cells That Can Suppress Mixed Lymphocyte Responses
Mark A. Exley, Syed Muhammad Ali Tahir, Olivia Cheng, Angela Shaulov, Robin Joyce, David Avigan, Robert Sackstein, and Steven P. Balk

5535 Cutting Edge: B Cell Specificity Contributes to the Outcome of Diabetes in Nonobese Diabetic Mice
Chrys Hulbert, Brent Riseili, Maurício Rojas, and James W. Thomas

5539 Cutting Edge: Antigen-Driven Lymphocyte Recruitment to the Lung Is Diminished in the Absence of Urokinase-Type Plasminogen Activator (uPA) Receptor, but Is Independent of uPA
Margaret R. Gyetko, Sudha Sud, Joanne Sonstein, Timothy Polak, Anchal Sud, and Jeffrey L. Curtis

5543 Cutting Edge: Leukocyte Receptor Complex-Encoded Immunomodulatory Receptors Show Differing Specificity for Alternative HLA-B27 Structures
Rachel L. Allen, Tim Raine, Anja Haude, John Trowsdale, and Michael J. Wilson

CELLULAR IMMUNOLOGY AND IMMUNE REGULATION

5549 Cross-Priming as a Predominant Mechanism for Inducing CD8$^+$ T Cell Responses in Gene Gun DNA Immunization
Jae Ho Cho, Jin Won Youn, and Young Chul Sung

5558 FcγRIIB in IgG-Mediated Suppression of Antibody Responses: Different Impact In Vivo and In Vitro
Mikael C. I. Karlsson, Andrew Getahun, and Birgitta Heyman

5565 Role of CD28-B7 Interactions in Generation and Maintenance of CD8 T Cell Memory
M. Suresh, Jason K. Whitmire, Laurie E. Harrington, Christian P. Larsen, Thomas C. Pearson, John D. Altman, and Rafi Ahmed

5574 Regulation of IFN-γ Signaling Is Essential for the Cytotoxic Activity of CD8$^+$ T Cells
Gregory Z. Tau, Simone N. Cowan, Jeffrey Weisburg, Ned S. Braunstein, and Paul B. Rothman

5583 Tumor-Infiltrating Macrophages Induce Apoptosis in Activated $CD8^+$ T Cells by a Mechanism Requiring Cell Contact and Mediated by Both the Cell-Associated Form of TNF and Nitric Oxide
Masanao Saio, Sasa Radoja, Mike Marino, and Alan B. Frey

5594 IL-10 Induces CCR6 Expression During Langerhans Cell Development While IL-4 and IFN-γ Suppress It
Marie-Caroline Dieu-Nosjean, Catherine Massacrier, Béatrice Vanbervliet, Wolf-Herman Fridman, and Christophe Caux

5603 *Listeria monocytogenes* Infection Overcomes the Requirement for CD40 Ligand in Exogenous Antigen Presentation to $CD8^+$ T Cells
Sara E. Hamilton, Amy R. Tvinnereim, and John T. Harty

5610 CD4 Ligation Promotes the IL-4-Independent Development of IL-4-Producing Clones from Naive $CD4^+$ T Cells
Scott B. Campbell, Tadashi Komata, and Anne Kelso

5620 Role of CD28 for the Generation and Expansion of Antigen-Specific $CD8^+$ T Lymphocytes During Infection with *Listeria monocytogenes*
Hans-Willi Mittrücker, Mischo Kursar, Anne Köhler, Robert Hurwitz, and Stefan H. E. Kaufmann

5628 Inefficient ZAP-70 Phosphorylation and Decreased Thymic Selection In Vivo Result from Inhibition of NF-κB/Rel
Ana L. Mora, Sarah Stanley, Wade Armistead, Andrew C. Chan, and Mark Boothby

5636 Antagonistic Roles for CTLA-4 and the Mammalian Target of Rapamycin in the Regulation of Clonal Anergy: Enhanced Cell Cycle Progression Promotes Recall Antigen Responsiveness
Tracy L. Vanasek, Alexander Khoruts, Traci Zell, and Daniel L. Mueller

5645 Chronic Ethanol Inhibits NK Cell Cytolytic Activity: Role of Opioid Peptide β-Endorphin
Nadka Boyadjieva, Madhavi Dokur, Juan P. Advis, Gary G. Meadows, and Dipak K. Sarkar

5653 Deletional Analysis of the Murine IL-12 p35 Promoter Comparing IFN-γ and Lipopolysaccharide Stimulation
Jutta Kollet, Christian Witek, John D. Gentry, Xiaojuan Liu, Steven D. Schwartzbach, and Thomas M. Petro

5664 Homeostatic Expansion Occurs Independently of Costimulatory Signals
Martin Prlic, Bruce R. Blazar, Alexander Khoruts, Traci Zell, and Stephen C. Jameson

5669 Immunological Memory: Contribution of Memory B Cells Expressing Costimulatory Molecules in the Resting State
Amit Bar-Or, Enedina M. L Oliveira, David E. Anderson, Jeff I. Krieger, Martin Duddy, Kevin C. O'Connor, and David A. Hafler

5678 CD40 Ligand Promotes Priming of Fully Potent Antitumor $CD4^+$ T Cells in Draining Lymph Nodes in the Presence of Apoptotic Tumor Cells
Nanae Fujita, Hiroshi Kagamu, Hirohisa Yoshizawa, Kazuhisa Itoh, Hideyuki Kuriyama, Naoya Matsumoto, Takuro Ishiguro, Junta Tanaka, Eiichi Suzuki, Hirofumi Hamada, and Fumitake Gejyo

5689 Dysregulated Expression of Pre-Tα Reveals the Opposite Effects of Pre-TCR at Successive Stages of T Cell Development
H. Daniel Lacorazza, Helen E. Porritt, and Janko Nikolich-Žugich

5697 CD45 Modulates Galectin-1-Induced T Cell Death: Regulation by Expression of Core 2 *O*-Glycans
Julie T. Nguyen, Douglas P. Evans, Marisa Galvan, Karen E. Pace, David Leitenberg, Thanhmy N. Bui, and Linda G. Baum

5708 Superantigen-Induced T Cell:B Cell Conjugation Is Mediated by LFA-1 and Requires Signaling Through Lck, But Not ZAP-70
Margaret M. Morgan, Christine M. Labno, Gijs A. Van Seventer, Michael F. Denny, David B. Straus, and Janis K. Burkhardt

5719 Signaling Lymphocytic Activation Molecule Expression and Regulation in Human Intracellular Infection Correlate with Th1 Cytokine Patterns
Verónica E. García, María F. Quiroga, María T. Ochoa, Laura Ochoa, Virginia Pasquinelli, Leonardo Fainboim, Liliana M. Olivares, Raúl Valdez, Daniel O. Sordelli, Gregorio Aversa, Robert L. Modlin, and Peter A. Sieling

5725 Graphical Representation of a Generalized Linear Model-Based Statistical Test Estimating the Fit of the Single-Hit Poisson Model to Limiting Dilution Assays
Thierry Bonnefoix, Philippe Bonnefoix, Mary Callanan, Paul Verdiel, and Jean-Jacques Sotto

5731 Tolerance, Mixed Chimerism, and Chronic Transplant Arteriopathy
Paul S. Russell, Catharine M. Chase, Megan Sykes, Hiroshi Ito, Juanita Shaffer, and Robert B. Colvin

5741 Opposing Effects of Anti-Activation-Inducible Lymphocyte-Immunomodulatory Molecule/Inducible Costimulator Antibody on the Development of Acute Versus Chronic Graft-Versus-Host Disease
Shu-hei Ogawa, Go Nagamatsu, Masashi Watanabe, Shiho Watanabe, Tomohito Hayashi, Shigeru Horita, Kosaku Nitta, Hiroshi Nihei, Katsunari Tezuka, and Ryo Abe

MOLECULAR AND STRUCTURAL IMMUNOLOGY

5749 A Role for a RhoA/ROCK/LIM-Kinase Pathway in the Regulation of Cytotoxic Lymphocytes
Zhenkun Lou, Daniel D. Billadeau, Doris N. Savoy, Renee A. Schoon, and Paul J. Leibson

5758 Epitope Mapping Using the X-Ray Crystallographic Structure of Complement Receptor Type 2 (CR2)/CD21: Identification of a Highly Inhibitory Monoclonal Antibody That Directly Recognizes the CR2-C3d Interface
Joel M. Guthridge, Kendra Young, Matthew G. Gipson, Maria-Rossa Sarrias, Gerda Szakonyi, Xiaojiang S. Chen, Angela Malaspina, Eileen Donoghue, Judith A. James, John D. Lambris, Susan A. Moir, Stephen J. Perkins, and V. Michael Holers

5767 Immature Human Dendritic Cells Express Asialoglycoprotein Receptor Isoforms for Efficient Receptor-Mediated Endocytosis
Jenny Valladeau, Valérie Duvert-Frances, Jean-Jacques Pin, Monique J. Kleijmeer, Smina Ait-Yahia, Odile Ravel, Claude Vincent, Felix Vega, Jr., Alison Helms, Dan Gorman, Sandra M. Zurawski, Gerard Zurawski, John Ford, and Sem Saeland

5775 Molecular Evolution of Catalytic Antibodies in Autoimmune Mice
Jialin Sun, Naoko Takahashi, Hiroyuki Kakinuma, and Yoshisuke Nishi

5786 Comparison of Chimpanzee and Human Leukocyte Ig-Like Receptor Genes Reveals Framework and Rapidly Evolving Genes
Flavio Canavez, Neil T. Young, Lisbeth A. Guethlein, Raja Rajalingam, Salim I. Khakoo, Benny P. Shum, and Peter Parham

5795 Characterization of CDw92 as a Member of the Choline Transporter-Like Protein Family Regulated Specifically on Dendritic Cells
Stefan Wille, Andreas Szekeres, Otto Majdic, Elisabeth Prager, Günther Staffler, Johannes Stöckl, Duangkamol Kunthalert, Eva E. Prieschl, Thomas Baumruker, Helmut Burtscher, Gerhard J. Zlabinger, Walter Knapp, and Hannes Stockinger

5805 Multiple Carboxyl-Terminal Regions of the EBV Oncoprotein, Latent Membrane Protein 1, Cooperatively Regulate Signaling to B Lymphocytes Via TNF Receptor-Associated Factor (TRAF)-Dependent and TRAF-Independent Mechanisms
Lisa K. Busch and Gail A. Bishop

5814 Association of FcγRII with Low-Density Detergent-Resistant Membranes Is Important for Cross-Linking-Dependent Initiation of the Tyrosine Phosphorylation Pathway and Superoxide Generation
Osamu Katsumata, Miki Hara-Yokoyama, Catherine Sautès-Fridman, Yasuko Nagatsuka, Toshiaki Katada, Yoshio Hirabayashi, Kazufumi Shimizu, Junko Fujita-Yoshigaki, Hiroshi Sugiya, and Shunsuke Furuyama

HOST DEFENSE

5824 Manipulation of Avidity to Improve Effectiveness of Adoptively Transferred $CD8^+$ T Cells for Melanoma Immunotherapy in Human MHC Class I-Transgenic Mice
Timothy N. J. Bullock, David W. Mullins, Teresa A. Colella, and Victor H. Engelhard

5832 Rejection of Intraocular Tumors by $CD4^+$ T Cells Without Induction of Phthisis
Lucas R. H. M. Schurmans, Linda Diehl, Annemieke T. den Boer, Roger P. M. Sutmuller, Zita F. H. M. Boonman, Jan Paul Medema, Ellen I. H. van der Voort, Jon Laman, Cornelis J. M. Melief, Martine J. Jager, and Rene E. M. Toes

5838 A Common Single Nucleotide Polymorphism in the CD14 Promoter Decreases the Affinity of Sp Protein Binding and Enhances Transcriptional Activity
Tricia D. LeVan, John W. Bloom, Thomas J. Bailey, Christopher L. Karp, Marilyn Halonen, Fernando D. Martinez, and Donata Vercelli

5845 The Capsular Polysaccharides of *Cryptococcus neoformans* Activate Normal $CD4^+$ T Cells in a Dominant Th2 Pattern
Geisy M. Almeida, Regis M. Andrade, and Cleonice A. M. Bento

5852 A New Generation of Melan-A/MART-1 Peptides That Fulfill Both Increased Immunogenicity and High Resistance to Biodegradation: Implication for Molecular Anti-Melanoma Immunotherapy
Jean-Sébastien Blanchet, Danila Valmori, Isabelle Dufau, Maha Ayyoub, Christophe Nguyen, Philippe Guillaume, Bernard Monsarrat, Jean-Charles Cerottini, Pedro Romero, and Jean Edouard Gairin

5862 HIV Mucosal Vaccine: Nasal Immunization with rBCG-V3J1 Induces a Long Term V3J1 Peptide-Specific Neutralizing Immunity in Th1- and Th2-Deficient Conditions
Takachika Hiroi, Hironobu Goto, Kenji Someya, Manabu Yanagita, Mitsuo Honda, Noboru Yamanaka, and Hiroshi Kiyono

5868 Surfactant Protein D Enhances Clearance of Influenza A Virus from the Lung In Vivo
Ann Marie LeVine, Jeffrey A. Whitsett, Kevan L. Hartshorn, Erika C. Crouch, and Thomas R. Korfhagen

5874 The Development of a Th1-Type Response and Resistance to *Leishmania major* Infection in the Absence of CD40-CD40L Costimulation
Udaikumar M. Padigel, Peter J. Perrin, and Jay P. Farrell

5880 Therapeutic Administration of Anti-PcrV $F(ab')_2$ in Sepsis Associated with *Pseudomonas aeruginosa*
Nobuaki Shime, Teiji Sawa, Junichi Fujimoto, Karine Faure, Leonard R. Allmond, Timur Karaca, Britta L. Swanson, Edward G. Spack, and Jeanine P. Wiener-Kronish

5887 Lipopolysaccharide Stimulates the MyD88-Independent Pathway and Results in Activation of IFN-Regulatory Factor 3 and the Expression of a Subset of Lipopolysaccharide-Inducible Genes
Taro Kawai, Osamu Takeuchi, Takashi Fujita, Jun-ichiro Inoue, Peter F. Mühlradt, Shintaro Sato, Katsuaki Hoshino, and Shizuo Akira

INFLAMMATION

5895 NF-κB-Inducing Kinase Is Dispensable for Activation of NF-κB in Inflammatory Settings but Essential for Lymphotoxin β Receptor Activation of NF-κB in Primary Human Fibroblasts
Clive Smith, Evangelos Andreakos, James B. Crawley, Fionula M. Brennan, Marc Feldmann, and Brian M. J. Foxwell

5904 Inhibition of Nitric Oxide Synthase Initiates Relapsing Remitting Experimental Autoimmune Encephalomyelitis in Rats, Yet Nitric Oxide Appears to be Essential for Clinical Expression of Disease
Nikki C. O'Brien, Brett Charlton, William B. Cowden, and David O. Willenborg

5913 IL-18-Binding Protein Protects Against Lipopolysaccharide-Induced Lethality and Prevents the Development of Fas/Fas Ligand-Mediated Models of Liver Disease in Mice
Raffaella Faggioni, Russell C. Cattley, Jane Guo, Silvia Flores, Heather Brown, Meiying Qi, Songmei Yin, David Hill, Sheila Scully, Ching Chen, David Brankow, Jeffrey Lewis, Claudia Baikalov, Harvey Yamane, Tina Meng, Frank Martin, Sylvia Hu, Tom Boone, and Giorgio Senaldi

5921 Complement Inhibitor, Complement Receptor 1-Related Gene/Protein y-Ig Attenuates Intestinal Damage After the Onset of Mesenteric Ischemia/Reperfusion Injury in Mice
Scott Rehrig, Sherry D. Fleming, Jimie Anderson, Joel M. Guthridge, Jonathan Rakstang, Charles E. McQueen, V. Michael Holers, George C. Tsokos, and Terez Shea-Donohue

5928 *Plasmodium berghei* Infection in Mice Induces Liver Injury by an IL-12- and Toll-Like Receptor/Myeloid Differentiation Factor 88-Dependent Mechanism
Keishi Adachi, Hiroko Tsutsui, Shin-Ichiro Kashiwamura, Ekihiro Seki, Hiroki Nakano, Osamu Takeuchi, Kazuyoshi Takeda, Ko Okumura, Luc Van Kaer, Haruki Okamura, Shizuo Akira, and Kenji Nakanishi

5935 Regulation of CD8 Expression in Mast Cells by Exogenous or Endogenous Nitric Oxide
Osamu Nohara, Marianna Kulka, René E. Déry, Fiona L. Wills, Nadir S. Hirji, Mark Gilchrist, and A. Dean Befus

5940 Selective Activation of p38 Mitogen-Activated Protein Kinase Cascade in Human Neutrophils Stimulated by IL-1β
Kenichi Suzuki, Masayuki Hino, Haruo Kutsuna, Fumihiko Hato, Chikahiko Sakamoto, Tatsuji Takahashi, Noriyuki Tatsumi, and Seiichi Kitagawa

5948 Human Eosinophils Induce Mucin Production in Airway Epithelial Cells Via Epidermal Growth Factor Receptor Activation
Pierre-Regis Burgel, Stephen C. Lazarus, Dominic Cheng-Wei Tam, Iris F. Ueki, Kamran Atabai, Martha Birch, and Jay A. Nadel

5955 Inability of IL-12 to Down-Regulate IgE Synthesis Due to Defective Production of IFN-γ in Atopic NC/Nga Mice
Masahiro Matsumoto, Atsuko Itakura, Akane Tanaka, Chie Fujisawa, and Hiroshi Matsuda

5963 Accelerated Fas-Mediated Apoptosis of Monocytes and Maturing Macrophages from Patients with Systemic Lupus Erythematosus: Relevance to In Vitro Impairment of Interaction with iC3b-Opsonized Apoptotic Cells
Yigal Shoshan, Izhak Shapira, Elias Toubi, Inna Frolkis, Michael Yaron, and Dror Mevorach

5970 Y Box-Binding Factor Promotes Eosinophil Survival by Stabilizing Granulocyte-Macrophage Colony-Stimulating Factor mRNA
Elizabeth E. Capowski, Stéphane Esnault, Saswati Bhattacharya, and James S. Malter

5977 Ceramide Regulates Lipopolysaccharide-Induced Phosphatidylinositol 3-Kinase and Akt Activity in Human Alveolar Macrophages
Martha M. Monick, Rama K. Mallampalli, Aaron B. Carter, Dawn M. Flaherty, Diann McCoy, Pamela K. Robeff, Michael W. Peterson, and Gary W. Hunninghake

5986 Hydrodynamic Shear Regulates the Kinetics and Receptor Specificity of Polymorphonuclear Leukocyte-Colon Carcinoma Cell Adhesive Interactions
Sameer Jadhav, Bruce S. Bochner, and Konstantinos Konstantopoulos

CLINICAL IMMUNOLOGY

5994 Inhibition of NF-κB-Dependent T Cell Activation Abrogates Acute Allograft Rejection
Patricia W. Finn, James R. Stone, Mark R. Boothby, and David L. Perkins

6002 HLA-G Inhibits Rolling Adhesion of Activated Human NK Cells on Porcine Endothelial Cells
Pietro Forte, Laszlo Pazmany, Ulrike B. Matter-Reissmann, Georg Stussi, Mårten K. J. Schneider, and Jörg D. Seebach

6009 Antigen Discovery in Chronic Human Inflammatory Central Nervous System Disease: Panning Phage-Displayed Antigen Libraries Identifies the Targets of Central Nervous System-Derived IgG in Subacute Sclerosing Panencephalitis
Mark P. Burgoon, Gregory P. Owens, Sharon Carlson, Amy L. Maybach, and Donald H. Gilden

6015 Enhancing Effect of IL-1, IL-17, and TNF-α on Macrophage Inflammatory Protein-3α Production in Rheumatoid Arthritis: Regulation by Soluble Receptors and Th2 Cytokines
Martine Chabaud, Guillaume Page, and Pierre Miossec

6021 Microenvironment Produced by Acute Myeloid Leukemia Cells Prevents T Cell Activation and Proliferation by Inhibition of NF-κB, c-Myc, and pRb Pathways
Andrea G. S. Buggins, Dragana Milojkovic, Matthew J. Arno, Nicholas C. Lea, Ghulam J. Mufti, N. Shaun B. Thomas, and William J. R. Hirst

6031 Possible Role of Organ-Specific Autoantigen for Fas Ligand-Mediated Activation-Induced Cell Death in Murine Sjögren's Syndrome
Naozumi Ishimaru, Kumiko Yanagi, Kouichi Ogawa, Takashi Suda, Ichiro Saito, and Yoshio Hayashi

6038 Preferential Usage of TCR-Vβ17 by Peripheral and Cutaneous T Cells in Nickel-Induced Contact Dermatitis
Lioba Büdinger, Nicole Neuser, Uwe Totzke, Hans F. Merk, and Michael Hertl

6045 Correction

6046 Author Index

6049 AAI Membership Application

6050 AAI Trainee Membership Application

VOLUME 167 / Nº 11 / DECEMBER 1, 2001

CUTTING EDGE

6069 Cutting Edge: A/WySnJ Transitional B Cells Overexpress the Chromosome 15 Proapoptotic *Blk* Gene and Succumb to Premature Apoptosis
Ian J. Amanna, Karen Clise-Dwyer, Faye E. Nashold, Kathleen A. Hoag, and Colleen E. Hayes

6073 Cutting Edge: Histone Acetylation and Recombination at the TCRγ Locus Follows IL-7 Induction
Jiaqiang Huang, Scott K. Durum, and Kathrin Muegge

6078 Cutting Edge: IL-4 Receptor Expression by Non-Bone Marrow-Derived Cells Is Required to Expel Gastrointestinal Nematode Parasites
Joseph F. Urban, Jr., Nancy Noben-Trauth, Lisa Schopf, Kathleen B. Madden, and Fred D. Finkelman

6082 Cutting Edge: Induction of Follicular Homing Precedes Effector Th Cell Development
Patrick Schaerli, Pius Loetscher, and Bernhard Moser

6087 Cutting Edge: Interactions Through the IL-10 Receptor Regulate Autoimmune Diabetes
Jenny M. Phillips, Nicole M. Parish, Martin Drage, and Anne Cooke

6092 Cutting Edge: Positive Selection Induced by a Self-Peptide with TCR Antagonist Activity
Fabio R. Santori, Stuart M. Brown, Yun Lu, Thomas A. Neubert, and Stanislav Vukmanović

CELLULAR IMMUNOLOGY AND IMMUNE REGULATION

6097 IL-3 Induces B7.2 (CD86) Expression and Costimulatory Activity in Human Eosinophils
Jocelyn Celestin, Olaf Rotschke, Kirsten Falk, Narayanaswamy Ramesh, Haifa Jabara, Jack Strominger, and Raif S. Geha

6105 Pre-Emptive Targeting of the Epitope Spreading Cascade with Genetically Modified Regulatory T Cells During Autoimmune Demyelinating Disease
Ling Yin, Min Yu, Andrea E. Edling, Julie A. Kawczak, Peter M. Mathisen, Tania Nanavati, Justin M. Johnson, and Vincent K. Tuohy

6113 CD18 Activation Epitopes Induced by Leukocyte Activation
Chan R. Beals, Ana C. Edwards, Rebecca J. Gottschalk, Taco W. Kuijpers, and Donald E. Staunton

6123 Tumor-Specific T Cell Activation by Recombinant Immunoreceptors: CD3ζ Signaling and CD28 Costimulation Are Simultaneously Required for Efficient IL-2 Secretion and Can Be Integrated Into One Combined CD28/CD3ζ Signaling Receptor Molecule
Andreas Hombach, Anja Wieczarkowiecz, Thomas Marquardt, Claudia Heuser, Loretta Usai, Christoph Pohl, Barbara Seliger, and Hinrich Abken

6132 Human B Cell Activation by Autologous NK Cells Is Regulated by CD40-CD40 Ligand Interaction: Role of Memory B Cells and $CD5^+$ B Cells
Isaac R. Blanca, Earl W. Bere, Howard A. Young, and John R. Ortaldo

6140 Differential Effects of Physiologically Relevant Hypoxic Conditions on T Lymphocyte Development and Effector Functions
Charles C. Caldwell, Hidefumi Kojima, Dmitriy Lukashev, John Armstrong, Mark Farber, Sergey G. Apasov, and Michail V. Sitkovsky

6150 $CD8^+$ T Lymphocytes in Double αβ TCR Transgenic Mice. I. TCR Expression and Thymus Selection in the Absence or in the Presence of Self-Antigen
Nicolas Legrand and Antonio A. Freitas

6158 $CD8^+$ T Lymphocytes in Double αβ TCR Transgenic Mice. II. Competitive Fitness of Dual αβ TCR $CD8^+$ T Lymphocytes in the Peripheral Pools
Nicolas Legrand and Antonio A. Freitas

6165 The Activatory Receptor 2B4 Is Expressed In Vivo by Human $CD8^+$ Effector αβ T Cells
Daniel E. Speiser, Marco Colonna, Maha Ayyoub, Marina Cella, Mikaël J. Pittet, Pascal Batard, Danila Valmori, Philippe Guillaume, Danielle Liénard, Jean-Charles Cerottini, and Pedro Romero

6171 A Dominant Jurkat T Cell Mutation That Inhibits LFA-1-Mediated Cell Adhesion Is Associated with Increased Cell Growth
Lisa K. Cherry, Kim S. C. Weber, and Lloyd B. Klickstein

6180 Tolerance or Immunity to a Tumor Antigen Expressed in Somatic Cells Can Be Determined by Systemic Proinflammatory Signals at the Time of First Antigen Exposure
Ian H. Frazer, Rachel De Kluyver, Graham R. Leggatt, Hua Yang Guo, Linda Dunn, Olivia White, Craig Harris, Amy Liem, and Paul Lambert

6188 TCR/Self-Antigen Interactions Drive Double-Negative T Cell Peripheral Expansion and Differentiation into Suppressor Cells
John J. Priatel, Oliver Utting, and Hung-Sia Teh

6195 Human Vγ2Vδ2 T Cells Produce IFN-γ and TNF-α with an On/Off/On Cycling Pattern in Response to Live Bacterial Products
Lisheng Wang, Hiranmoy Das, Arati Kamath, and Jack F. Bukowski

6202 Rhabdovirus Infection Induces Public and Private T Cell Responses in Teleost Fish
Pierre Boudinot, Samira Boubekeur, and Abdenour Benmansour

6210 2B4 (CD244)-Mediated Activation of Cytotoxicity and IFN-γ Release in Human NK Cells Involves Distinct Pathways
Samuel S. Chuang, Pappanaicken R. Kumaresan, and Porunelloor A. Mathew

6217 Fas Ligand Engagement of Resident Peritoneal Macrophages In Vivo Induces Apoptosis and the Production of Neutrophil Chemotactic Factors
Andreas M. Hohlbaum, Meredith S. Gregory, Shyr-Te Ju, and Ann Marshak-Rothstein

6225 T Cell Costimulation by the TNF Ligand BAFF
Bertrand Huard, Pascal Schneider, Davide Mauri, Jürg Tschopp, and Lars E. French

6232 IL-12 Prevents the Inhibitory Effects of *cis*-Urocanic Acid on Tumor Antigen Presentation by Langerhans Cells: Implications for Photocarcinogenesis
Stefan Beissert, David Rühlemann, Taj Mohammad, Stephan Grabbe, Ali El-Ghorr, Mary Norval, Harry Morrison, Richard D. Granstein, and Thomas Schwarz

6239 TCRβ Chain Influences But Does Not Solely Control Autoreactivity of Vα14J281T Cells
Ming Gui, Jin Li, Li-Jun Wen, Richard R. Hardy, and Kyoko Hayakawa

6247 Lipopolysaccharide Modulation of Dendritic Cells Is Insufficient to Mature Dendritic Cells to Generate CTLs from Naive Polyclonal $CD8^+$ T Cells In Vitro, Whereas CD40 Ligation Is Essential
Michelle Kelleher and Peter C. L. Beverley

6256 Cre Recombinase-Mediated Inactivation of H-$2D^d$ Transgene Expression: Evidence for Partial Missing Self-Recognition by Ly49A NK Cells
Vassilios Ioannidis, Jacques Zimmer, Friedrich Beermann, and Werner Held

6263 Evidence for a Compartmentalized B Cell Response as Characterized by IgG Epitope Specificity in Human Ocular Toxoplasmosis
Vincent N. A. Klaren and Ron Peek

6270 Requirement for Ca^{2+}/Calmodulin-Dependent Kinase Type IV/Gr in Setting the Thymocyte Selection Threshold
Vidya Raman, Frank Blaeser, Nga Ho, Deborah L. Engle, Calvin B. Williams, and Talal A. Chatila

6279 Without CD4 Help, CD8 Rejection of Pig Xenografts Requires CD28 Costimulation But Not Perforin Killing
Yifan Zhan, Jamie L. Brady, Robyn M. Sutherland, and Andrew M. Lew

6286 Kinetics of Antigen-Induced Phenotypic and Functional Maturation of Human Monocyte-Derived Dendritic Cells
Szu-Min Hsieh, Sung-Ching Pan, Chien-Ching Hung, Hsing-Chun Tsai, Mao-Yuan Chen, Chun-Nan Lee, and Shan-Chwen Chang

6292 The IL-15Rα Chain Signals Through Association with Syk in Human B Cells
Elena Bulanova, Vadim Budagian, Thomas Pohl, Hans Krause, Horst Dürkop, Ralf Paus, and Silvia Bulfone-Paus

6303 Receptor Modulation by FcγRI-Specific Fusion Proteins Is Dependent on Receptor Number and Modified by IgG
Cheryl A. Guyre, Tibor Keler, Sharon L. Swink, Laura A. Vitale, Robert F. Graziano, and Michael W. Fanger

6312 The Amount of Scurfin Protein Determines Peripheral T Cell Number and Responsiveness
Roli Khattri, Deborah Kasprowicz, Tom Cox, Marty Mortrud, Mark W. Appleby, Mary E. Brunkow, Steven F. Ziegler, and Fred Ramsdell

6321 Engagement of the FcεRI Stimulates the Production of IL-16 in Langerhans Cell-Like Dendritic Cells
Kristian Reich, Andrea Heine, Sabine Hugo, Volker Blaschke, Peter Middel, Arthur Kaser, Herbert Tilg, Sabine Blaschke, Carsten Gutgesell, and Christine Neumann

6330 Constitutive Expression of LIGHT on T Cells Leads to Lymphocyte Activation, Inflammation, and Tissue Destruction
Raziya B. Shaikh, Sybil Santee, Steven W. Granger, Kristine Butrovich, Tim Cheung, Mitchell Kronenberg, Hilde Cheroutre, and Carl F. Ware

6338 SF20/IL-25, a Novel Bone Marrow Stroma-Derived Growth Factor That Binds to Mouse Thymic Shared Antigen-1 and Supports Lymphoid Cell Proliferation
Edgardo E. Tulin, Nobuhisa Onoda, Yasuhiko Nakata, Masatsugu Maeda, Masakazu Hasegawa, Hitoshi Nomura, and Toshio Kitamura

6348 The Impact of H2-DM on Humoral Immune Responses
Christopher Alfonso, Jung-Ok Han, G. Stuart Williams, and Lars Karlsson

MOLECULAR AND STRUCTURAL IMMUNOLOGY

6356 Transduction of an *IL-2* Gene into Human Melanoma-Reactive Lymphocytes Results in Their Continued Growth in the Absence of Exogenous IL-2 and Maintenance of Specific Antitumor Activity
Ke Liu and Steven A. Rosenberg

6366 The Association of Aiolos Transcription Factor and Bcl-x_L Is Involved in the Control of Apoptosis
Angelita Rebollo, Verónica Ayllón, Aarne Fleischer, Carlos Martínez-A., and Angel Zaballos

6374 β-Amyloid Fibrils Activate the C1 Complex of Complement Under Physiological Conditions: Evidence for a Binding Site for Aβ on the C1q Globular Regions
Pascale Tacnet-Delorme, Sylvie Chevallier, and Gérard J. Arlaud

6382 Immunoreceptor Tyrosine-Based Inhibitory Motif of the IL-4 Receptor Associates with SH2-Containing Phosphatases and Regulates IL-4-Induced Proliferation
Masaki Kashiwada, Cosmas C. Giallourakis, Ping-Ying Pan, and Paul B. Rothman

6388 Characterization of a CD40-Dominant Inhibitory Receptor Mutant
Anja M. Mehl, Matthew Jones, Martin Rowe, and Paul Brennan

6394 SH2 Domain-Containing Inositol Polyphosphate 5′-Phosphatase Is the Main Mediator of the Inhibitory Action of the Mast Cell Function-Associated Antigen
Rong Xu, Jakub Abramson, Mati Fridkin, and Israel Pecht

6403 Surrogate Light Chain-Mediated Interaction of a Soluble Pre-B Cell Receptor with Adherent Cell Lines
Harald Bradl and Hans-Martin Jäck

6412 A Novel NF-κB/Rel Site in Intron 1 Cooperates with Proximal Promoter Elements to Mediate TNF-α-Induced Transcription of the Human Polymeric Ig Receptor
Hilde Schjerven, Per Brandtzaeg, and Finn-Eirik Johansen

6421 Functional and Structural Similarity of Vγ9Vδ2 T Cells in Humans and *Aotus* Monkeys, a Primate Infection Model for *Plasmodium falciparum* Malaria
Claudia A. Daubenberger, Maxence Salomon, William Vecino, Beatrice Hübner, Heike Troll, Raul Rodriques, Manuel E. Patarroyo, and Gerd Pluschke

6431 The Alternatively Spliced Domain TnFnIII A1A2 of the Extracellular Matrix Protein Tenascin-C Suppresses Activation-Induced T Lymphocyte Proliferation and Cytokine Production
Marta D. Puente Navazo, Danila Valmori, and Curzio Rüegg

6441 Intramembrane Proteolysis of Signal Peptides: An Essential Step in the Generation of HLA-E Epitopes
Marius K. Lemberg, Felicity A. Bland, Andreas Weihofen, Veronique M. Braud, and Bruno Martoglio

6447 The Carboxyl Terminus of the Granulocyte Colony-Stimulating Factor Receptor, Truncated in Patients with Severe Congenital Neutropenia/Acute Myeloid Leukemia, Is Required for SH2-Containing Phosphatase-1 Suppression of Stat Activation
Fan Dong, Yaling Qiu, Taolin Yi, Ivo P. Touw, and Andrew C. Larner

HOST DEFENSE

6453 IFN-αβ-Dependent, IFN-γ Secretion by Bone Marrow-Derived Macrophages Controls an Intracellular Bacterial Infection
Antonio Gigliotti Rothfuchs, Dulceaydee Gigliotti, Karin Palmblad, Ulf Andersson, Hans Wigzell, and Martín E. Rottenberg

6462 Efficient Delivery of Antennapedia Homeodomain Fused to CTL Epitope With Liposomes Into Dendritic Cells Results in the Activation of $CD8^+$ T Cells
Ghania G. Chikh, Spencer Kong, Marcel B. Bally, Jean-Claude Meunier, and Marie-Paule M. Schutze-Redelmeier

6471 Two *Listeria monocytogenes* Vaccine Vectors That Express Different Molecular Forms of Human Papilloma Virus-16 (HPV-16) E7 Induce Qualitatively Different T Cell Immunity That Correlates with Their Ability to Induce Regression of Established Tumors Immortalized by HPV-16
George R. Gunn, Abba Zubair, Christian Peters, Zhen-Kun Pan, Tzyy-Choou Wu, and Yvonne Paterson

6480 Immunization with gp96 from *Listeria monocytogenes*-Infected Mice Is Due to *N*-Formylated Listerial Peptides
Anne-Marit Sponaas, Ulrich Zuegel, Stephan Weber, Robert Hurwitz, Ralf Winter, Stephanie Lamer, Peter R. Jungblut, and Stefan H. E. Kaufmann

6487 A Novel Mimetic Antigen Eliciting Protective Antibody to *Neisseria meningitidis*
Dan M. Granoff, Gregory R. Moe, Marzia M. Giuliani, Jeannette Adu-Bobie, Laura Santini, Brunella Brunelli, Francesca Piccinetti, Patricia Zuno-Mitchell, Sharon S. Lee, Paolo Neri, Luisa Bracci, Luisa Lozzi, and Rino Rappuoli

6497 Tumor-Specific Tc1, But Not Tc2, Cells Deliver Protective Antitumor Immunity
Roslyn A. Kemp and Franca Ronchese

6503 CXCR2 Deficiency Confers Impaired Neutrophil Recruitment and Increased Susceptibility During *Toxoplasma gondii* Infection
Laura Del Rio, Soumaya Bennouna, Jesus Salinas, and Eric Y. Denkers

6510 Cytoadherence of *Plasmodium falciparum*-Infected Erythrocytes Is Mediated by a Redox-Dependent Conformational Fraction of CD36
Paola Gruarin, Luca Primo, Chiara Ferrandi, Federico Bussolino, Narendra N. Tandon, Paolo Arese, Daniela Ulliers, and Massimo Alessio

6518 Involvement of Nicotinic Acetylcholine Receptors in Suppression of Antimicrobial Activity and Cytokine Responses of Alveolar Macrophages to *Legionella pneumophila* Infection by Nicotine
Kazuto Matsunaga, Thomas W. Klein, Herman Friedman, and Yoshimasa Yamamoto

6525 Monocyte Chemoattractant Protein-1-Dependent Increase of Vα14 NKT Cells in Lungs and Their Roles in Th1 Response and Host Defense in Cryptococcal Infection
Kazuyoshi Kawakami, Yuki Kinjo, Kaori Uezu, Satomi Yara, Kazuya Miyagi, Yoshinobu Koguchi, Toshinori Nakayama, Masaru Taniguchi, and Atsushi Saito

6533 Differential Regulation of Nitric Oxide Synthase-2 and Arginase-1 by Type 1/Type 2 Cytokines In Vivo: Granulomatous Pathology Is Shaped by the Pattern of L-Arginine Metabolism
Matthias Hesse, Manuel Modolell, Anne C. La Flamme, Marco Schito, José Manuel Fuentes, Allen W. Cheever, Edward J. Pearce, and Thomas A. Wynn

6545 Fc Receptor-Mediated Immunity Against *Bordetella pertussis*
Maria Eugenia Rodriguez, Sandra M. M. Hellwig, Daniela F. Hozbor, Jeanette Leusen, W.-Ludo van der Pol, and Jan G. J. van de Winkel

INFLAMMATION

6552 Role of p38 Mitogen-Activated Protein Kinase in Chemokine-Induced Emigration and Chemotaxis In Vivo
Denise C. Cara, Jaswinder Kaur, Melanie Forster, Donna-Marie McCafferty, and Paul Kubes

6559 Forced Expression of Murine IL-17E Induces Growth Retardation, Jaundice, a Th2-Biased Response, and Multiorgan Inflammation in Mice
Guohua Pan, Dorothy French, Weiguang Mao, Miko Maruoka, Philip Risser, James Lee, Jessica Foster, Sudeepta Aggarwal, Katrina Nicholes, Susan Guillet, Peter Schow, and Austin L. Gurney

6568 Neutrophil Proteinase 3-Mediated Induction of Bioactive IL-18 Secretion by Human Oral Epithelial Cells
Shunji Sugawara, Akiko Uehara, Tomonori Nochi, Takahiro Yamaguchi, Haruyasu Ueda, Akiko Sugiyama, Kazuo Hanzawa, Katsuo Kumagai, Haruki Okamura, and Haruhiko Takada

6576 A Functional IFN-γ-Inducible Protein-10/CXCL10-Specific Receptor Expressed by Epithelial and Endothelial Cells That Is Neither CXCR3 Nor Glycosaminoglycan
Kenzo Soejima and Barrett J. Rollins

6583 IL-13 Fusion Cytotoxin Ameliorates Chronic Fungal-Induced Allergic Airway Disease in Mice
Kate Blease, Claudia Jakubzick, Jane M. Schuh, Bharat H. Joshi, Raj K. Puri, and Cory M. Hogaboam

6593 Surfactant Protein A Regulates Complement Activation
Wendy T. Watford, Jo Rae Wright, C. Garren Hester, Haixiang Jiang, and Michael M. Frank

6601 Involvement of Phosphoinositide 3-Kinases in Neutrophil Activation and the Development of Acute Lung Injury
Ho-Kee Yum, John Arcaroli, John Kupfner, Robert Shenkar, Josef M. Penninger, Takehiko Sasaki, Kuang-Yao Yang, Jong Sung Park, and Edward Abraham

6609 The Endogenous Opioid Spinorphin Blocks fMet-Leu-Phe-Induced Neutrophil Chemotaxis by Acting as a Specific Antagonist at the *N*-Formylpeptide Receptor Subtype FPR
Thomas S. Liang, Ji-Liang Gao, Omid Fatemi, Mark Lavigne, Thomas L. Leto, and Philip M. Murphy

6615 Trypsin Induces Activation and Inflammatory Mediator Release from Human Eosinophils Through Protease-Activated Receptor-2
Satoshi Miike, Andrew S. McWilliam, and Hirohito Kita

CLINICAL IMMUNOLOGY

6623 Skin Allograft Maintenance in a New Synchimeric Model System of Tolerance
Neal N. Iwakoshi, Thomas G. Markees, Nicole Turgeon, Thomas Thornley, Amy Cuthbert, Jean Leif, Nancy E. Phillips, John P. Mordes, Dale L. Greiner, and Aldo A. Rossini

6631 Deficiency of 5-Lipoxygenase Accelerates Renal Allograft Rejection in Mice
Jennifer L. Goulet, Robert C. Griffiths, Phillip Ruiz, Roslyn B. Mannon, Pat Flannery, Jeffrey L. Platt, Beverly H. Koller, and Thomas M. Coffman

6637 IFN-γ Affects Homing of Diabetogenic T Cells
Alexei Y. Savinov, F. Susan Wong, and Alexander V. Chervonsky

6644 Mediators of Innate Immunity That Target Immature, But Not Mature, Dendritic Cells Induce Antitumor Immunity When Genetically Fused with Nonimmunogenic Tumor Antigens
Arya Biragyn, Munhsuren Surenhu, De Yang, Pier Adelchi Ruffini, Bryan Allen Haines, Elena Klyushnenkova, Joost J. Oppenheim, and Larry W. Kwak

6654 Liver Damage by Infiltrating CD8$^+$ T Cells Is Fas Dependent
Norman J. Kennedy, Jennifer Q. Russell, Nina Michail, and Ralph C. Budd

6663 Evidence for Increased T Cell Turnover and Decreased Thymic Output in HIV Infection
Daniel C. Douek, Michael R. Betts, Brenna J. Hill, Susan J. Little, Richard Lempicki, Julia A. Metcalf, Joseph Casazza, Christian Yoder, Joseph W. Adelsberger, Randy A. Stevens, Michael W. Baseler, Philip Keiser, Douglas D. Richman, Richard T. Davey, and Richard A. Koup

6669 Augmentation Versus Inhibition: Effects of Conjunctional OX-40 Receptor Monoclonal Antibody and IL-2 Treatment on Adoptive Immunotherapy of Advanced Tumor
Jørgen Kjaergaard, Liaomin Peng, Peter A. Cohen, Judith A. Drazba, Andrew D. Weinberg, and Suyu Shu

6678 Expression and Regulation of Fas and Fas Ligand on Thyrocytes and Infiltrating Cells During Induction and Resolution of Granulomatous Experimental Autoimmune Thyroiditis
Yongzhong Wei, Kemin Chen, Gordon C. Sharp, Hideo Yagita, and Helen Braley-Mullen

6687 Author Index

VOLUME 167 / Nº 12 / DECEMBER 15, 2001

CUTTING EDGE

6701 Cutting Edge: Inhibition of Hepatitis B Virus Replication by Activated NK T Cells Does Not Require Inflammatory Cell Recruitment to the Liver
Kazuhiro Kakimi, Thomas E. Lane, Francis V. Chisari, and Luca G. Guidotti

6706 Cutting Edge: Regulation of CD8$^+$ T Cell Proliferation by 2B4/CD48 Interactions
Taku Kambayashi, Erika Assarsson, Benedict J. Chambers, and Hans-Gustaf Ljunggren

6711 Cutting Edge: Secondary Lymphoid Organs Are Essential for Maintaining the CD4, But Not CD8, Naive T Cell Pool
Zhenhua Dai and Fadi G. Lakkis

CELLULAR IMMUNOLOGY AND IMMUNE REGULATION

6717 Multiple Levels of Activation of Murine CD8$^+$ Intraepithelial Lymphocytes Defined by OX40 (CD134) Expression: Effects on Cell-Mediated Cytotoxicity, IFN-γ, and IL-10 Regulation
Heuy-Ching Wang and John R. Klein

6724 A Ligand for the Chemokine Receptor CCR7 Can Influence the Homeostatic Proliferation of CD4 T Cells and Progression of Autoimmunity
Corinne Ploix, David Lo, and Monica J. Carson

6731 Cell Surface Targeting of Heat Shock Protein gp96 Induces Dendritic Cell Maturation and Antitumor Immunity
Hong Zheng, Jie Dai, Diliana Stoilova, and Zihai Li

6736 Differential Secretion of Fas Ligand- or APO2 Ligand/TNF-Related Apoptosis-Inducing Ligand-Carrying Microvesicles During Activation-Induced Death of Human T Cells
Inmaculada Monleón, María José Martínez-Lorenzo, Luis Monteagudo, Pilar Lasierra, Marta Taulés, María Iturralde, Andrés Piñeiro, Luis Larrad, María Angeles Alava, Javier Naval, and Alberto Anel

6745 Soluble CD26/Dipeptidyl Peptidase IV Induces T Cell Proliferation Through CD86 Up-Regulation on APCs
Kei Ohnuma, Yasuhiko Munakata, Tomonori Ishii, Satoshi Iwata, Seiji Kobayashi, Osamu Hosono, Hiroshi Kawasaki, Nam H. Dang, and Chikao Morimoto

6756 Visualization of Early APC/T Cell Interactions in the Mouse Lung Following Intranasal Challenge
Craig A. Byersdorfer and David D. Chaplin

6765 Pre-Existing Tumor-Sensitized T Cells Are Essential for Eradication of Established Tumors by IL-12 and Cyclophosphamide Plus IL-12
Hop N. Le, Natalie C. Lee, Kangla Tsung, and Jeffrey A. Norton

6773 Essential Contribution of Germline-Encoded Lysine Residues in Jγ1.2 Segment to the Recognition of Nonpeptide Antigens by Human γδ T Cells
Fumi Miyagawa, Yoshimasa Tanaka, Seiji Yamashita, Bunzo Mikami, Kiichiro Danno, Masami Uehara, and Nagahiro Minato

6780 CD46/CD3 Costimulation Induces Morphological Changes of Human T Cells and Activation of Vav, Rac, and Extracellular Signal-Regulated Kinase Mitogen-Activated Protein Kinase
Yona Zaffran, Olivier Destaing, Agnès Roux, Stéphane Ory, Thao Nheu, Pierre Jurdic, Chantal Rabourdin-Combe, and Anne L. Astier

6786 Regulation and Possible Function of β-Catenin in Human Monocytes
Andrea Thiele, Mark Wasner, Claudia Müller, Kurt Engeland, and Sunna Hauschildt

6794 Tolerance to Nickel: Oral Nickel Administration Induces a High Frequency of Anergic T Cells with Persistent Suppressor Activity
Suzan Artik, Karin Haarhuis, Xianzhu Wu, Jutta Begerow, and Ernst Gleichmann

6804 Engagement of OX40 Enhances Antigen-Specific $CD4^+$ T Cell Mobilization/Memory Development and Humoral Immunity: Comparison of αOX-40 with αCTLA-4
Dean E. Evans, Rodney A. Prell, Colin J. Thalhofer, Arthur A. Hurwitz, and Andrew D. Weinberg

6812 TNF Type 2 Receptor (p75) Lowers the Threshold of T Cell Activation
Edward Y. Kim and Hung-Sia Teh

6821 In Vivo Neutralization of TNF-α Promotes Humoral Autoimmunity by Preventing the Induction of CTL
Charles S. Via, Andrei Shustov, Violeta Rus, Thomas Lang, Phuong Nguyen, and Fred D. Finkelman

6827 The Src-Protein Tyrosine Kinase Lck Is Required for IL-1-Mediated Costimulatory Signaling in Th2 Cells
Basel K. al-Ramadi, Thomas Welte, Maria J. Fernandez-Cabezudo, Sehamuddin Galadari, Bonnie Dittel, Xin-Yuan Fu, and Alfred L. M. Bothwell

6834 Resolution of Three Nonproliferative Immature Splenic B Cell Subsets Reveals Multiple Selection Points During Peripheral B Cell Maturation
David Allman, R. Coleman Lindsley, William DeMuth, Kristina Rudd, Susan A. Shinton, and Richard R. Hardy

6841 IL-2, -4, and -15 Differentially Regulate *O*-Glycan Branching and P-Selectin Ligand Formation in Activated CD8 T Cells
Douglas A. Carlow, Stéphane Y. Corbel, Michael J. Williams, and Hermann J. Ziltener

6849 In Vivo and In Vitro Modulation of HLA-DM and HLA-DO Is Induced by B Lymphocyte Activation
Corinne Roucard, Claire Thomas, Marie-Anne Pasquier, John Trowsdale, Jean-Jacques Sotto, Jacques Neefjes, and Marieke van Ham

6859 Immunoproteasomes Largely Replace Constitutive Proteasomes During an Antiviral and Antibacterial Immune Response in the Liver
Selina Khan, Maries van den Broek, Katrin Schwarz, Rita de Giuli, Pierre-André Diener, and Marcus Groettrup

6869 IL-7 Enhances the Survival and Maintains the Size of Naive T Cells
Jeffrey C. Rathmell, Evan A. Farkash, Wei Gao, and Craig B. Thompson

6877 A Mandatory Role for STAT4 in IL-12 Induction of Mouse T Cell CCR5
Masayuki Iwasaki, Takao Mukai, Chigusa Nakajima, Yi-Fu Yang, Ping Gao, Nobuya Yamaguchi, Michio Tomura, Hiromi Fujiwara, and Toshiyuki Hamaoka

Molecular and Structural Immunology

6884 Differential IL-10R1 Expression Plays a Critical Role in IL-10-Mediated Immune Regulation
Yaozhong Ding, Lihui Qin, Dmitriy Zamarin, Sergei V. Kotenko, Sidney Pestka, Kevin W. Moore, and Jonathan S. Bromberg

6893 Epidermal Langerhans Cell-Targeted Gene Expression by a Dectin-2 Promoter
Makoto Bonkobara, Paul K. Zukas, Sojin Shikano, Shinichiro Nakamura, Ponciano D. Cruz, Jr., and Kiyoshi Ariizumi

6901 Exon 5 Encoding the Transmembrane Region of HLA-A Contains a Transitional Region for the Induction of Nonsense-Mediated mRNA Decay
Yumiko Watanabe, Katharine E. Magor, and Peter Parham

6912 CR2/CD21 Proximal Promoter Activity Is Critically Dependent on a Cell Type-Specific Repressor
Daniela Ulgiati and V. Michael Holers

6920 Enteric Bacteria Counteract Lipopolysaccharide Induction of Antimicrobial Peptide Genes
Hans Lindmark, Karin C. Johansson, Svenja Stöven, Dan Hultmark, Ylva Engström, and Kenneth Söderhäll

6924 NFκB and Sp1 Elements Are Necessary for Maximal Transcription of Toll-like Receptor 2 Induced by *Mycobacterium avium*
Tianyi Wang, William P. Lafuse, and Bruce S. Zwilling

6933 Unusual Germline DSP2 Gene Accounts for All Apparent V-D-D-J Rearrangements in Newborn, But Not Adult, MRL Mice
Elizabeth Kompfner, Paula Oliveira, Alina Montalbano, and Ann J. Feeney

6939 Hydrogen Bond Integrity Between MHC Class II Molecules and Bound Peptide Determines the Intracellular Fate of MHC Class II Molecules
Lynne S. Arneson, John F. Katz, Michael Liu, and Andrea J. Sant

Host Defense

6947 Control of Advanced Choroid Plexus Tumors in SV40 T Antigen Transgenic Mice Following Priming of Donor $CD8^+$ T Lymphocytes by the Endogenous Tumor Antigen
Todd D. Schell and Satvir S. Tevethia

6957 A Protective and Agonistic Function of IL-12p40 in Mycobacterial Infection
Christoph Hölscher, Robert A. Atkinson, Berenice Arendse, Najmeeyah Brown, Elmarie Myburgh, Gottfried Alber, and Frank Brombacher

6967 Immune Elimination of *Leishmania major* in Mice: Implications for Immune Memory, Vaccination, and Reactivation Disease
Jude E. Uzonna, Guojian Wei, Dean Yurkowski, and Peter Bretscher

6975 Bacterial Peptidoglycan-Induced *tnf-α* Transcription Is Mediated Through the Transcription Factors Egr-1, Elk-1, and NF-κB
Zhaojun Xu, Roman Dziarski, Qiuling Wang, Kevin Swartz, Kathleen M. Sakamoto, and Dipika Gupta

6983 The Role of Antigen in the Localization of Naive, Acutely Activated, and Memory $CD8^+$ T Cells to the Lung During Influenza Pneumonia
David J. Topham, Maria R. Castrucci, F. Suzette Wingo, Gabrielle T. Belz, and Peter C. Doherty

6991 $CD4^+$ T Cells Are Required for the Development of Cytotoxic $CD8^+$ T Cells During *Mycobacterium tuberculosis* Infection
Natalya V. Serbina, Vanja Lazarevic, and JoAnne L. Flynn

INFLAMMATION

7001 Cytokine Regulation of Facilitated Glucose Transport in Human Articular Chondrocytes
Alexander R. Shikhman, Diana C. Brinson, Jean Valbracht, and Martin K. Lotz

7009 *Salmonella* Flagellin-Dependent Proinflammatory Responses Are Localized to the Conserved Amino and Carboxyl Regions of the Protein
Tonyia D. Eaves-Pyles, Hector R. Wong, Kelli Odoms, and Richard B. Pyles

7017 Regulation of Hepatic Fibrosis and Extracellular Matrix Genes by the Th Response: New Insight into the Role of Tissue Inhibitors of Matrix Metalloproteinases
Brian Vaillant, Monica G. Chiaramonte, Allen W. Cheever, Paul D. Soloway, and Thomas A. Wynn

7027 Localizing a Control Region in the Pathway to Leukotriene C_4 Secretion Following Stimulation of Human Basophils with Anti-IgE Antibody
Katsushi Miura, Sandra Lavens-Phillips, and Donald W. MacGlashan, Jr.

7038 Expression and Release of IL-18 Binding Protein in Response to IFN-γ
Jens Paulukat, Markus Bosmann, Marcel Nold, Stefanie Garkisch, Heiko Kämpfer, Stefan Frank, Jochen Raedle, Stefan Zeuzem, Josef Pfeilschifter, and Heiko Mühl

7044 Role of NF-κB in Endotoxemia-Induced Alterations of Lung Neutrophil Apoptosis
John G. Kupfner, John J. Arcaroli, Ho-Kee Yum, Steven G. Nadler, Kuang-Yao Yang, and Edward Abraham

7052 Specific Inhibition of the Classical Complement Pathway by C1q-Binding Peptides
Anja Roos, Alma J. Nauta, Daniël Broers, Maria C. Faber-Krol, Leendert A. Trouw, Jan Wouter Drijfhout, and Mohamed R. Daha

7060 Role of IL-18 in Acute Lung Inflammation
Jacqueline A. Jordan, Ren-Feng Guo, Edward C. Yun, Vidya Sarma, Roscoe L. Warner, Larry D. Crouch, Giorgio Senaldi, Thomas R. Ulich, and Peter A. Ward

7069 Novel Engagement of CD14 and Multiple Toll-Like Receptors by Group B Streptococci
Philipp Henneke, Osamu Takeuchi, Jos A. van Strijp, Hilde-Kari Guttormsen, Jason A. Smith, Andra B. Schromm, Terje A. Espevik, Shizuo Akira, Victor Nizet, Dennis L. Kasper, and Douglas T. Golenbock

7077 IFN-γ-Inducible Protein-10 (CXCL10) Is Hepatoprotective During Acute Liver Injury Through the Induction of CXCR2 on Hepatocytes
Cynthia L. Bone-Larson, Cory M. Hogaboam, Holly Evanhoff, Robert M. Strieter, and Steven L. Kunkel

7084 CXCR3 Internalization Following T Cell-Endothelial Cell Contact: Preferential Role of IFN-Inducible T Cell α Chemoattractant (CXCL11)
Alain Sauty, Richard A. Colvin, Ludwig Wagner, Sophie Rochat, Francois Spertini, and Andrew D. Luster

7094 Administration of Dehydroepiandrosterone Suppresses Experimental Allergic Encephalomyelitis in SJL/J Mice
Caigan Du, M. Wahid Khalil, and Subramaniam Sriram

7102 Disruption of Neutrophil Migration in a Conditional Transgenic Model: Evidence for CXCR2 Desensitization In Vivo
Maria T. Wiekowski, Shu-Cheng Chen, Petronio Zalamea, Brian P. Wilburn, David J. Kinsley, Wanda W. Sharif, Kristian K. Jensen, Joseph A. Hedrick, Denise Manfra, and Sergio A. Lira

CLINICAL IMMUNOLOGY

7111 Role of TGFβ in Development of Spontaneous Autoimmune Thyroiditis in NOD.H-2h4 Mice
Helen Braley-Mullen, Kemin Chen, Yongzhong Wei, and Shiguang Yu

7119 T Cell Epitopes of Human Myelin Oligodendrocyte Glycoprotein Identified in HLA-DR4 (DRB10401) Transgenic Mice Are Encephalitogenic and Are Presented by Human B Cells
Thomas G. Forsthuber, Carey L. Shive, Wolfgang Wienhold, Katrien de Graaf, Edward G. Spack, Robert Sublett, Arthur Melms, Jens Kort, Michael K. Racke, and Robert Weissert

7126 Systemic Sclerosis (Scleroderma): Specific Autoantigen Genes Are Selectively Overexpressed in Scleroderma Fibroblasts
Xiaodong Zhou, Filemon K. Tan, Momiao Xiong, Dianna M. Milewicz, Carol A. Feghali, Marvin J. Fritzler, John D. Reveille, and Frank C. Arnett

7134 Infrequent Detection of HIV-1-Specific, But Not Cytomegalovirus-Specific, $CD8^+$ T Cell Responses in Young HIV-1-Infected Infants
Zachary A. Scott, Ellen G. Chadwick, Laura L. Gibson, Michelle D. Catalina, Margaret M. McManus, Ram Yogev, Paul Palumbo, John L. Sullivan, Paula Britto, Hannah Gay, Katherine Luzuriaga, and PACTG 345 Investigators

7141 Genetic Contributions of Nonautoimmune SWR Mice Toward Lupus Nephritis
Shangkui Xie, SoogHee Chang, Ping Yang, Chryshanthi Jacob, Arunan Kaliyaperumal, Syamal K. Datta, and Chandra Mohan

7150 Dendritic Cell-Based Xenoantigen Vaccination for Prostate Cancer Immunotherapy
Lawrence Fong, Dirk Brockstedt, Claudia Benike, Jami K. Breen, George Strang, Curtis L. Ruegg, and Edgar G. Engleman

7157 Rheumatoid Arthritis (RA)-Associated HLA-DR Alleles Form Less Stable Complexes with Class II-Associated Invariant Chain Peptide Than Non-RA-Associated HLA-DR Alleles
Namrata S. Patil, Achal Pashine, Michael P. Belmares, Wendy Liu, Brandy Kaneshiro, Joshua Rabinowitz, Harden McConnell, and Elizabeth D. Mellins

7169 Genetic Control of T and B Lymphocyte Activation in Nonobese Diabetic Mice
Priscilla P. L. Chiu, Anthony M. Jevnikar, and Jayne S. Danska

7180 Potentiation of Simian Immunodeficiency Virus (SIV)-Specific $CD4^+$ and $CD8^+$ T Cell Responses by a DNA-SIV and NYVAC-SIV Prime/Boost Regimen
Zdeněk Hel, Wen-Po Tsai, Arthur Thornton, Janos Nacsa, Laura Giuliani, Elzbieta Tryniszewska, Monita Poudyal, David Venzon, Xiaochi Wang, John Altman, David I. Watkins, Wenhong Lu, Agneta von Gegerfelt, Barbara K. Felber, James Tartaglia, George N. Pavlakis, and Genoveffa Franchini

7192 Identification of Anti-Thrombin Antibodies in the Antiphospholipid Syndrome That Interfere with the Inactivation of Thrombin by Antithrombin
Kwan-Ki Hwang, Jennifer M. Grossman, Sudha Visvanathan, Reginald U. Chukwuocha, Virgil L. Woods, Jr., Dzung T. Le, Bevra H. Hahn, and Pojen P. Chen

7199 Loss of Direct and Maintenance of Indirect Alloresponses in Renal Allograft Recipients: Implications for the Pathogenesis of Chronic Allograft Nephropathy
Richard J. Baker, Maria P. Hernandez-Fuentes, Paul A. Brookes, Afzal N. Chaudhry, H. Terry Cook, and Robert I. Lechler

7207 Correction

7208 Author Index

7210 Ad Hoc Reviewers

7218 Author Index to Volume 167

7239 Subject Index to Volume 167

iii Cumulative Contents to Volume 167

xlvii AAI Membership Application

xlviii AAI Trainee Membership Application